# NCODA

# RESOURCE GUIDE

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# Integrated Oncology



| MEDICALLY INTEGRATED DISPENSING PHARMACY (MIP): ASCO-NCODA STANDARDS UPDATE | |
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| **Topic** | **Standard** |
| **Domain 1. Patient-Centered Quality Standards** | |
| **1.1.** Health equity and social determinants of health | **1.1.1.** Patients should be evaluated for social risks, health literacy, diagnosis and/or disease perceptions, and medication beliefs before prescribing oral anticancer medications. Refer to community and practice resources, such as NCODA's process, as appropriate. |
| | **1.1.2.** Patient care should be tailored to address cultural, linguistic, and socioeconomic factors. |
| **1.2.** Patient communication and documentation | **1.2.1.** Patient onboarding activities should include an explanation of the specialty pharmacy process, including the affiliation and close working relationship with the prescribing physician and healthcare team. |
| | **1.2.2.** Activities focused on securing drug access by coordination and submission of prior authorization, evaluating patients' ability to afford copays, and seeking financial assistance or support programs to ensure therapy initiation should be a seamless transition by accessing and providing documentation in the patient record. Point of contact, if someone other than the patient, including confirmation of authorization under HIPAA, should also be included. |
| | **1.2.3.** A direct phone line must be available during normal business hours for immediate assistance. Messages left on this line should aim to be returned within the same business day, but no later than 24 hours. Patients should have access to 24/7 support. If an answering service or other technology is utilized, the pharmacist or staff members should be available for callback within a reasonable timeframe. A phone tree must be in place appointing alternate points of contact for escalation if needed. Patients should be provided with clear instructions on how and when to contact the pharmacy, including, but not limited to, questions about medication use, side effects, potential adverse events, reporting missing or damaged medications, and requesting refills or updates on prescription orders. All information should be provided to the patient verbally and in writing with their prescription medication. |
| | **1.2.4.** Pharmacies may utilize technologies that facilitate remote communication, which may include telehealth, apps, and electronic portals. |
| | **1.2.5.** Every patient encounter should be documented in the patient record. In most cases, this would be an electronic medical record, and the Expert Panel for these standards endorses the use of electronic documentation. All questions posed by the patient or guardian and/or caregiver, related to process or clinical matters regarding therapy, should be documented in the patient's record. In cases where the patient cannot be reached, attempts should be documented, and follow-up should be coordinated with the extended medical team during the next scheduled clinic visit, as appropriate. |
| | **1.2.6.** All tools used to communicate with patients must be compliant with the Health Insurance Portability and Accountability Act and sanctioned by the MIP's affiliated institution or practice. |
| **1.3.** Benefits investigation and access coordination | **1.3.1.** Staff members within the MIP with specialized expertise should be assigned to each respective step of the patient journey to ensure coordinated and comprehensive access to care. |
| | **1.3.2.** All aspects of benefit investigations will be coordinated by the MIP, including primary and secondary insurance coverage, determination of formulary coverage including preferred drug or step edit requirements, prior authorization requirements and completed submission including biomarker testing, patient out-of-pocket cost inclusive of deductibles and copay amounts, evaluation for financial assistance eligibility, and comprehensive support for program enrollment including but not limited to charitable foundation, patient assistance programs, low-income subsidy programs, manufacturer copay cards or assistance programs, or the Medicare Prescription Payment Plan as applicable. A non-pharmacist MIP team member (e.g., pharmacy technician) may assist in managing the patient medication acquisition process, discussions with the patient, and completing applications on the patient's behalf.[1] |
| | **1.3.3.** Prescription benefits should be documented in the patient's record. |
| | **1.3.4.** The MIP will implement strategies and standard operating procedures to address prescription abandonment due to financial toxicity or situations where a filled prescription is not picked up. |

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| **1.4.** Education and medication dispense | **1.4.1.** Before initiation of therapy with an oral anticancer medication, a formal patient education session should occur with an experienced clinical educator such as a nurse, physician, pharmacist, nurse practitioner, or physician's assistant. The discussion should include drug name (generic and brand), dose and schedule, potential adverse effects and how to properly manage them, potential drug-drug interactions, fertility (if applicable), treatment goal, duration of therapy, storage and handling, and financial and affordability considerations.[2-4] |
| | **1.4.2.** An informed consent form (or assent if applicable) outlining the intent of therapy should be reviewed with the patient (and their caregiver, if applicable) by a patient educator. The patient consent may be provided verbally or by signing a consent form. The patient should provide consent only after all questions have been addressed. For written consent, the patient will receive a copy for their records, and the original document will be included in the patient's record. Verbal consent should be documented as determined by institutional policy. |
| | **1.4.3.** Members of the MIP team should identify whether a patient has a caregiver, and if so, emphasize the importance of educating the caregiver in addition to the patient. |
| | **1.4.4.** Patient education should include diagnosis and the medication being dispensed. The patient's ability to understand the treatment plan and self-administer medication should be assessed. Additionally, a thorough review of current medications, allergies, and baseline lab results should be conducted to ensure safety and efficacy. |
| | **1.4.5.** At the time of any new therapy initiation, written patient education should be provided. This information should be provided in plain language with translation options wherever possible. The clinician should use techniques such as a teach-back to confirm that the patient understands the information contained in the written materials. |
| | **1.4.6.** Patient education must comply with federal, state, and Risk Evaluation and Mitigation Strategy requirements when applicable. |
| | **1.4.7.** Educational materials should be provided in multiple formats and may include medication kits with supportive care resources, self-care management strategies, as well as assistance in procuring devices or tools for self-monitoring when applicable.[5] |
| | **1.4.8.** The MIP will confirm medication dispense, confirm logistics for delivery or pick-up, maintain clear communication on any delays, and/or address any issues that may arise in this process. |
| | **1.4.9.** The MIP should document the exact date the patient begins therapy, in both the medical and pharmacy records, serving as the baseline for monitoring therapy effectiveness, adherence, and potential adverse events and aligned to the MIP care plan for patient follow-up on first dose experience, immediate concerns, and adherence review and reinforcement. |
| **1.5.** Adherence | **1.5.1.** A baseline adherence assessment should be conducted prior to dispensing the medication to evaluate potential barriers and risk of nonadherence. A specific nonadherence risk assessment tool, such as the one jointly developed by NCODA and Oncology Nursing Society, may be utilized for this purpose. This assessment should be completed prior to providing formal education and initiating therapy. Identified barriers to adherence should be addressed, and appropriate interventions implemented, to mitigate barriers and provide patient support before treatment begins. |
| | **1.5.2.** A multidisciplinary collaborative approach to monitoring adherence is recommended.[6-10] |
| | **1.5.3.** The MIP may provide calendars or other scheduling communications. If a patient calendar is provided, the calendar should include refill dates and medication schedules, clearly outlining specific dates to take medication, as well as laboratory and other monitoring parameters (e.g., electrocardiogram and/or echocardiogram) and clinician visits. A visual calendar may be helpful to illustrate combined oral and intravenous regimens. Include documentation of calendar information in the patient record. |
| | **1.5.4.** Use of an electronic portal, app, or written tool to obtain patient-reported outcome measures is encouraged.[11-15] |
| | **1.5.5.** Communication with patients and educational follow-up is essential to determine comprehension and retention of initial instructions, adherence, and toxicities.[16-18] Communications should be tailored to specific medications and patient comorbidities; re-education may be required. Subsequent follow-up calls to the patient should have a drug-specific cadence based on the anticipated time to onset of potential adverse events and be tailored to individual patient characteristics and risk factors, such as education, comprehension, performance status, tolerance to previous therapies, etc. |
| | **1.5.6.** The physician must be directly notified by the MIP team of any issues related to patient compliance, including delayed therapy initiation, tolerability, missed doses, in-home inventory, or missed lab appointments. |

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| **1.5.** Adherence | **1.5.7.** Oral anticancer medication should be dispensed in the original container as directed by the label. If medication is not dispensed in the original container or blister pack, pill caddies may be appropriate and helpful for patient adherence. |
| | **1.5.8.** The MIP should continually evaluate electronic and manual tools that may be helpful in advancing patient adherence. Smart pill bottles and mobile apps may be utilized to increase adherence.[6,19-24] |
| | **1.5.9.** The MIP should assess patient adherence and monitor toxicity at each clinical encounter. Metrics such as medication possession ratio or proportion of days covered can help evaluate adherence but have limitations when applied to oral anticancer medications. Therapy interruptions, such as those for toxicity management or disease response evaluation, require direct patient engagement and clinical context to provide a complete picture of adherence. Any variances, such as drug holidays or dose holds, should be documented within the patient record. |
| | **1.5.10.** Adherence assessment and documentation should include (1) confirmation the patient received the prescription, (2) the start date for the medication, and (3) verification that the patient fully understands how to take the medication, including the number of pills to take, specific days the medication should be taken, the dosing frequency per day, particularly for intermittent dosing, whether the medication should be taken with or without food, and instructions on safe handling. |
| | **1.5.11.** Ongoing drug utilization reviews should be conducted to verify the patient's active medication list, including all prescription and over-the-counter and herbal medications. These reviews should identify potential interactions or other concerns that may impact safety or efficacy. |
| | **1.5.12.** It is recommended to routinely inquire about any life changes, such as updates to insurance or financial status, that may affect the patient's ability to afford their medications. |
| | **1.5.13.** For prescriptions that will be dispensed outside the MIP, roles of the external specialty or mail-order pharmacy and the MIP should be determined and communicated to the patient. MIP teams are encouraged to apply the same rigorous clinical evaluation, counseling and documentation as they would for an internally dispensed prescription. |
| **1.6.** Safety | **1.6.1.** The MIP should implement a dual-check system for patient identity verification at the point of dispensing, using at least two patient identifiers (e.g., name, date of birth, and address) at both prescription entry and dispensing. |
| | **1.6.2.** The most recent physician note should be reviewed to validate the treatment plan, ensuring an appropriate diagnosis for newly prescribed oral anticancer medications or confirmation of therapy continuation. The stated dose must align with the prescribed dose and directions. |
| | **1.6.3.** Prescriptions for an oral anticancer medication, either processed internally at the MIP or transferred to an external pharmacy for fulfillment, should undergo the same rigorous review by the MIP personnel, including checks for duplicate therapies, potential drug interactions, toxicity risks, and an assessment of social determinants of health that may impact the patient's ability to access or adhere to the prescribed treatment. |
| | **1.6.4.** Drug utilization review should be conducted at each patient encounter to confirm recent medication changes, including over-the-counter medications, alternative medicines, and/or herbal therapies. |
| | **1.6.5.** Patient follow-up visits for toxicity evaluation and management should be scheduled throughout the course of therapy, with confirmation documented in the patient chart. This includes an initial tolerability and assessment visit shortly after the start of a new oral anticancer medication. Additional visits may be necessary for oral anticancer medications with potential side effects presenting later in therapy to ensure ongoing monitoring and management. |
| | **1.6.6.** Safety management and monitoring programs may be beneficial in improving patient comorbidities and managing side effects.[25-28] |
| | **1.6.7.** Labeling of prescriptions should follow legal labeling requirements. |
| **1.7.** Refilling of prescriptions | **1.7.1.** Scheduled outreach via phone, text, or email should be conducted to confirm that the patient is taking the oral anticancer medication as directed, assess for side effects or toxicities, address medication-related concerns, and determine the number of pills on hand. Findings related to adherence and persistence should be documented within the EMR. |
| | **1.7.2.** The date of the patient's most recent clinic visit, the date of the next scheduled visit, and any scheduled labs, imaging, or relevant appointments should be verified. Additionally, the most recent progress note should be reviewed to confirm the prescribing physician's intent to continue therapy. |
| | **1.7.3.** Any patient concerns or indications in the patient's record suggesting therapy modifications or discontinuation or upcoming clinic visits should be discussed with the physician to determine whether the refill should be processed. |
| | **1.7.4.** Refill requests will be submitted electronically to the prescribing physician for approval, or an existing authorized refill on file may be utilized. |
| | **1.7.5.** Secured financial assistance should be applied during medication refill processing. Patients should be informed of their copay amount, and any changes in copay compared to previous fills should be communicated to the patient and investigated for additional financial assistance if necessary. |

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| **1.7.** Refilling of prescriptions | **1.7.6.** The date and method by which the patient secures the medication refill should be confirmed. The next pharmacy outreach should be scheduled and confirmed. The patient should be reminded of the refill process, the availability of the pharmacy, and how to reach the pharmacy with any questions or concerns. |
| | **1.7.7.** All interventions related to the patient's refill (e.g., coordination with injectable chemotherapy or newly prescribed medications) should be documented in the patient record. The intervention may need to be clarified with the patient, and staff should be prepared to address any questions the patient may have. |
| **1.8.** Medication disposal | **1.8.1.** Resources should be developed to establish a consistent and compliant framework for directing patients to authorized drug take-back locations and mail-back programs for proper medication disposal. |
| | **1.8.2.** MIP staff should be trained in effective patient communication regarding proper medication disposal, emphasizing protocols and general principles, such as avoiding flushing or disposing of oral anticancer medications in regular household trash. |
| **1.9.** Patient satisfaction | **1.9.1.** A consistent, patient-centered process should be established to collect, analyze, and act on patient satisfaction feedback. Key areas should include staff communication, navigation of the fulfillment process, education provided, timeliness, and overall satisfaction. Insights from this feedback should be systematically incorporated into pharmacy operations to drive continuous improvements in service quality and patient outcomes. |
| | **1.9.2.** Feedback should be solicited from patients through surveys to identify and address continuous improvement opportunities at MIP practices. |
| | **1.9.3.** Participation should be voluntary, offering patients multiple feedback options including in-person or phone surveys (direct or automated), paper forms, digital surveys, or patient portals. |
| | **1.9.4.** Patient satisfaction data results should be analyzed and trended as part of continuous quality improvement efforts to inform, evaluate, and enhance pharmacy practices. |
| **1.10.** Patient navigation | **1.10.1.** To ensure optimal treatment outcomes, MIPs should establish a structured patient navigation program aligned with Principal Illness Navigation principles. Certified professionals (e.g., pharmacists, nurses, social workers) should conduct patient-centered assessments addressing medical, emotional, cultural, and linguistic needs, providing individualized guidance through treatment plans, medication regimens, and transitions in care while offering emotional support and connecting patients with relevant community, financial, and social resources. All interactions and care interventions should be documented and maintained within the EMR to ensure transparency and continuity of care. |
| | **1.10.2.** Patient-reported outcomes should be integrated into the MIP workflows to capture real-time feedback, evaluate treatment effectiveness and refine navigation strategies as needed. |
| **1.11.** Quality management | **1.11.1.** MIPs are encouraged to seek specialty pharmacy accreditation through recognized organizations. Accreditation standards support effective quality management (continuous quality improvement, quality assurance, and performance improvement) within clinical oversight, operational excellence, and patient-centered care requirements. |
| | **1.11.2.** A quality management plan should be developed to monitor, evaluate, and improve all aspects of pharmacy services. |
| | **1.11.3.** The MIP should establish a quality management committee to report and analyze performance metrics and trends at regularly scheduled meetings. |
| | **1.11.4.** All staff members should complete regular training and competency assessment on pharmacy operations, patient communication, and clinical updates. |
| | **1.11.5.** Performance metrics and audits of quality management activities should be transparently shared with leadership, the MIP, and medically integrated teams to promote continuous quality improvements and measurable success in patient outcomes. |
| | **1.11.6.** Key performance indicators should be tracked, including medication dispensing accuracy and operational efficiency. Root cause analysis can be helpful in identifying underlying factors of errors or suboptimal outcomes. |
| | **1.11.7.** Data analysis and staff feedback should continually refine process improvement initiatives, including refinement of operational workflows. |
| **Domain 2. Operational Quality Standards** | |
| 2.1. Dispensing | **2.1.1.** Workflow and process flow diagrams are recommended for interdisciplinary teams operating within both embedded and decentralized MIP settings. These diagrams should outline interdepartmental workflows, communication protocols, and documentation process to promote consistent collaboration and minimize redundancies. All relevant updates, including patient encounters, workflow progress or delays should be documented within the EMR, ensuring that all team members have access to up-to-date information for care coordination. |
| | **2.1.2.** A decision tree or flow map should be established to standardize the prescription dispensing process. This framework should encompass all steps, from prescription generation by the physician to medication delivery, receipt confirmation, and the patient's initiation of therapy. |

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| **2.1.** Dispensing | **2.1.3.** Routine staff training and scheduled meetings are recommended to enhance MIP team awareness of policy updates and flow changes. These sessions should also address updates to workflow as necessary. Regular audits of documented processes are encouraged to ensure accuracy and adherence to established procedures. |
| | **2.1.4.** Consider establishing pre-built, standardized instructions, including details for special instructions, to promote consistency and accuracy in labeling. Ensure all auxiliary labels are consistent with prescribing instructions and clearly communicate critical information. |
| | **2.1.5.** A final review process should be established to ensure that labeled instructions align with the patient's treatment plan and that any potential inconsistencies in dosing schedules or drug interactions are flagged, investigated, and resolved prior to dispense. |
| | **2.1.6.** Implement a dispensing audit process to detect and prevent mislabeled prescriptions, incorrect fills (e.g., wrong drug, strength, or quantity), and incorrect patient-to-medication matching. Real-time quality control checks should be conducted during the dispense workflow, and incidents of near misses should be recorded in a quality improvement log to track trends, identify systemic issues, and determine the need for corrective action plans. |
| | **2.1.7.** Standardized packing and shipping protocols should be established. These protocols should include processes for tracking shipments, addressing delays or lost shipments requiring re-shipment, and verifying that appropriate conditions (e.g., temperature, humidity) are maintained throughout the shipping process. Periodic reviews of these procedures are recommended to ensure compliance with quality standards. |
| | **2.1.8.** In the event of a lost or damaged medication, or any other issue in the patient receiving their prescription, the circumstances of the issue should be documented, the patient made aware, and the incident documented within the EMR. Determine if re-shipment will be covered by the plan provider, submit a new claim if required, and escalate to the appeals process as needed, or evaluate options for patient assistance programs or internal financial support to allow re-dispensing and avoid any delays in therapy. |
| | **2.1.9.** A structured approach to effectively manage drug shortages should be developed. This includes maintaining strong communication channels with wholesalers, exploring alternative suppliers, and regularly monitoring inventory levels to identify potential issues as early as possible. When shortages occur, the MIP should assess available allocation from wholesalers, evaluate alternative sourcing options, and determine the expected duration of the shortage. Plans for managing the shortage, including identifying suitable alternative therapies, incorporating national guidelines such as those from ASCO when available, or developing internal guidance if no publicly available recommendations exist, should be shared promptly with the healthcare team. Proactive communication with patients is essential during drug shortages. The MIP should inform patients about any potential delays or changes to their medication regimen, providing timely updates on the status of the shortage and any adjustments, including alternative therapy options, to minimize disruption to treatment. Ensuring alignment with evidence-based practices and maintaining continuity of care are critical. |
| **2.2.** Care coordination | **2.2.1.** Assigning a dedicated care coordinator can help oversee patient treatment plans, ensure timely execution of therapy milestones, and maintain accurate documentation within the EMR. Real-time communication to the care team reduces deviations from the treatment plan and enhances coordination of care across disciplines. |
| | **2.2.2.** Clear protocols should be established to facilitate seamless coordination for a variety of therapies, including multiple oral anticancer medications, oral anticancer medication and retail medications, oral anticancer medication and injectable medications, and oral anticancer medication with other treatment modalities, such as radiation or surgery. These protocols should include detailed instructions tailored to the patient's regimen, a process for medication fill synchronization, comprehensive therapy calendars to manage overlapping treatment schedules, procedures to identify and address potential interactions between therapies, and communication plans to align all members of the care team, including external clinicians. |
| | **2.2.3.** A collaborative practice agreement between pharmacists and physicians may be considered to shorten the turnaround time for processing prescriptions. Clinical activities of the pharmacist under the collaborative practice agreement may include dose rounding, dose adjustments, prescription refill renewals, and ordering laboratory tests.[29] |
| | **2.2.4.** Proactive measures should be taken to address any potential logistical challenges, e.g., insurance authorizations, delivery delays, back orders or impending inclement weather, to avoid treatment interruptions. |
| | **2.2.5.** Ensure patients receive consistent education about their treatment plan and how different therapies interact. |
| | **2.2.6.** Develop mechanisms to capture, track, trend, report, and respond to patient-reported outcomes or concerns related to therapies. |
| | **2.2.7.** A multidisciplinary team, including clinical, operations and administrative staff with relevant expertise, should evaluate newly approved drugs reviewing prescribing information, clinical data, approved indications, and determination of ordering access. Staff training should be developed and conducted to ensure proficiency in dispensing and managing the new medication, and workflows and documentation protocols should be established and integrated into EMR and pharmacy system. A mechanism for addressing barriers to access, reimbursement challenges, and distribution limitations should be developed. Information about new medications, including overview and education and confirmation that the medication has been reviewed and loaded into all systems and is available for physician prescribing and dispensing from the MIP, should be disseminated to all pharmacy and practice staff. |

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| **2.3.** Cost and avoidance waste | **2.3.1.** Implementing strategies to mitigate financial toxicity and reduce waste is highly encouraged. Approaches such as split-fill programs and drug repositories for dispensing unused medications can result in significant cost savings.[30-32] Additional strategies include comprehensive clinical evaluation and coordination, such as: assessing imaging for signs of disease progression that may necessitate therapy discontinuation or adjustment prior to next dispense; monitoring laboratory values for abnormalities that could require dose reduction, hold, or discontinuation; identifying intolerable side effects that would prompt a change in dose or discontinuation; and drug utilization review. |
| | **2.3.2.** Waste mitigation strategies should be integrated into patient management practices and tracked for their impact. Monitoring and documenting pharmacy-led interventions and estimated healthcare cost savings can demonstrate the value of these efforts. Tools such as NCODA's Cost Avoidance and Waste Tracker or other similar tools, are recommended to quantify those savings and highlight their significance to stakeholders. |
| **2.4.** Health disparities | **2.4.1.** Operational processes that incorporate social determinants of health assessments into MIP workflows to streamline access and reduce barriers to treatment may be aligned to principles of the Community Health Integration. The MIP should consider developing partnerships with local and national organizations to provide patient access to resources, such as transportation, housing, nutrition, and financial aid, to enhance patient-centered care and promote patient self-advocacy and quality of life. |
| **Domain 3. Foundational Standards** | |
| **3.1.** Mission statement | **3.1.1.** A mission statement should include three elements:<br>1. Our Cause: Define the who, what, and where the MIP serves.<br>2. Our Actions: Highlight the services and actions provided to support patients.<br>3. Our Impact: Describe the positive impact for the integrated care team and the patients throughout the patient journey and in outcomes delivered. |
| **3.2.** Organizational chart | **3.2.1.** The MIP should establish and maintain an up-to-date organizational chart detailing roles and responsibilities. |
| **3.3.** Business plan | **3.3.1.** Scope of Business: Specify closed-door status, ensuring exclusivity of services for patients within a specific practice. |
| | **3.3.2.** Licensing Requirements: Specify operations type as a licensed pharmacy or a physician dispensing program, adhering to state regulations. |
| | **3.3.3.** Pro Forma Analysis: Evaluate prescription coverage and identify payer or pharmacy benefits manager limitations, including a review of regional payer relationships. |
| | **3.3.4.** Limited Distribution: Identify any LDD networks that may impact patient access. Engage with pharma and biotech companies during the development of phase to understand and provide input on distribution models selected for emerging therapies. Keep an up-to-date list of all LDD and respective networks to ensure transparency and streamline operations including direct shipments. Develop and implement SOPs to assist patients in navigating options when the MIP is unable to access or dispense a medication. This should include proactive and clear explanation to patients for any LDD restrictions, coordinating with outside specialty pharmacies to minimize delays in treatment and continuing patient engagement, where possible, with education and care management. |
| | **3.3.5.** Medication Scope: Determine the type of prescriptions to be dispensed, including: oral anticancer medication, generic medications utilized in combination with an oral anticancer medication, supportive medications for symptom management (e.g., antiemetics), and controlled substances for pain control. |
| | **3.3.6.** Staffing Model: Provide a detailed staffing plan, with the preference for oncology-trained pharmacists and certified pharmacy technicians, navigators, and oncology-certified nurses. |
| | **3.3.7.** Facility Requirements |
| | **3.3.7.1.** Ensure compliance with State Board of Pharmacy requirements, as applicable, including state specific design or infrastructure standards such as the presence of a sink near the dispensing area for handwashing and sanitation. |
| | **3.3.7.2.** For any planned renovations or relocations to meet operational and compliance needs, ensure timely notification to any relevant credentialing or accrediting bodies as required by regulatory guidelines. |
| | **3.3.7.3.** Conduct a post-renovation or relocation assessment to verify compliance with applicable regulations priorto resuming dispensing operations. |

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| **3.4.** Implementation timeline | **3.4.1.** Ensure all state Board of Pharmacy requirements, payer contracts, and physical space designs are finalized well before dispensing begins. Checkpoints to validate operational readiness must be completed in advance of the first prescription being processed. |
| | **3.4.2.** Develop a comprehensive, clear, actionable timeline for launching MIP services, including milestones for facility readiness, licensing approval, payer onboarding and staff training. |
| | **3.4.3.** Establish an internal communication plan to ensure all members of the medically integrated team and administrative teams are fully informed about the scope of services to be provided by the MIP. Communication, timelines, and training plans should be developed for operationalizing any workflow changes associated with the MIP integration. |
| | **3.4.4.** Outreach strategy to inform patient of MIP services should highlight the benefits of the MIP, such as improved coordination of care, timely access to medications, and a dedicated support team. Clear instructions should be provided to patients regarding the option to transition care, how prescriptions will be managed, and next steps should they desire to receive or transfer care to the MIP. A plan for coordination and standardization of patient messaging and interactions should be developed and executed. |
| **3.5.** Business elements | **3.5.1.** The central business office and MIP leadership should collaboratively oversee establishment and management of business operations to ensure compliance, efficiency, and sustainability. Dedicated staff, distinct from buy-and-bill, are recommended to ensure clear role delineation and continuity. |
| | **3.5.2.** Pharmacy Service Administrative Organization selection and activation to support pharmacy operational, administrative and regulatory requirements.<br>• Payer contracts including negotiated reimbursement rates, terms and conditions, network participation and credentialing support services such as monthly Office of Inspector General exclusion<br>• Central pay services from respective pharmacy benefits managers and payers, reconciliation, aged accounts receivable<br>• Patient billing and statements<br>• Fulfilment of state, federal, and pharmacy benefit manager regulation and reporting requirements, such as monthly OIG exclusion and annual fraud waste and abuse training |
| | **3.5.3.** Pharmacy processing system selection with workflow design developed to support the specialty prescription fulfillment process.<br>**3.5.3.1.** Ensure system integration capabilities with the EMR and/or practice management systems supporting patient demographic feed at a minimum.<br>**3.5.3.2.** Workflow design set up within the system to support documentation and work queues throughout the prescription fulfillment process and refill management including patient communication and documentation. Comprehensive staff training should be provided with staff sign-off acknowledging receipt, understanding and proficiency in completing assigned responsibilities. Training materials should be developed, including step-by-step procedures and screenshots for all new hire training. An audit plan, including frequency of conducting, should be established, with recommendation that audits be conducted no less than annually, for determination of any root-cause analysis and following onboarding of new staff members. |
| | **3.5.4.** Identify and contract with a switch company to facilitate the electronic transmission of claims. |
| | **3.5.5.** Establish affiliation with a primary wholesaler and group purchasing organization. Develop infrastructure and workflow for online catalog access, ordering, and price file updates. Collaborate with wholesaler on drug delivery and timing as a component of inventory management. |
| | **3.5.6.** Obtain liability insurance coverage as required by payer contracts, considering facility coverage and individual professional coverage. |
| | **3.5.7.** Contract with a credit card processing company to facilitate secure and efficient payment processing. |
| | **3.5.8.** Develop and maintain workflow for claims submission, editing, adjudication, and reconciliation including SOP for obtaining patient insurance, application of secondary insurance or available assistance, evaluation of received adjudication amount and audit preparation and readiness for payer and regulatory requirements. |
| **3.6.** Dispensing space requirements | **3.6.1.** Establish a patient counseling area that ensures privacy and confidentiality for patient interactions. |
| | **3.6.2.** The need for the following infrastructure items should be considered: secure storage areas and shelving for medications, adequate workstations for pharmacy staff tailored to specific functions and sufficient space to promote productivity and safety, counting trays and bins for efficient workflow, a sink for handwashing (as required by state regulation), a refrigerator for temperature sensitive medications, and software and hardware to support dispensing operations. |

**ABBREVIATIONS:** **EMR:** electronic medical record; **FDA:** U.S. Food and Drug Administration; **HIPAA:** Health Insurance Portability and Accountability Act; **LDD:** Limited Distribution Drug; **MIP:** medically integrated dispensing pharmacy; **NIOSH:** National Institute for Occupational Safety and Health; **OSHA:** Occupational Safety and Health Administration; **P&P:** policies and procedures; **SOP:** standard operating procedures; **USP:** US Pharmacopeia

| MEDICALLY INTEGRATED DISPENSING PHARMACY (MIP): ASCO-NCODA STANDARDS UPDATE | |
|---|---|
| **Topic** | **Standard** |
| **3.7.** Communication plan | **3.7.1.** Develop a central communication mechanism to ensure timely and consistent communication with:<br>• Physicians, staff, and patients<br>• Practice leadership<br>• Practice business office and/or contracting department |
| | **3.7.2.** Ensure that marketing materials (e.g., brochures, flyers, or website) are reviewed and approved by the MIP team and leadership before dissemination to maintain accuracy and compliance. |
| **3.8.** Policies and procedures | **3.8.1.** Establish and maintain policies and procedures (P&P) to ensure clarity, consistency, and operational excellence. Policies should define overarching principles and goals of the MIP, while SOPs provide a detailed step-by-step process to implement and operationalize policies. |
| | **3.8.2.** Integrate continuous quality improvement, quality assurance, root cause analysis and corrective action/preventative action processes into both P&P and SOPs. These processes should cover the following areas:<br>• Daily dispensing operations and workflow management, defining workflows and establishing monitoring protocols to ensure accuracy and adherence to SOPs. Quality assurance measures should include routine checks and documentation audits to identify and address discrepancies proactively.<br>• Comprehensive staff training with a quality assurance process to evaluate training effectiveness and staff proficiency. Use root cause analysis to investigate knowledge gaps or recurring errors and refine training programs accordingly, for both onboarding new staff and annual competency of existing staff.<br>• Detail processes for internal and external audits, including a checklist of documentation and regulatory requirements.<br>• Include procedures for secure shipping, tracking, and confirmation of medication deliveries independent of patient confirmation to document timely and accurate patient receipt.<br>• Ensure uniform processes across all satellite locations, with defined documentation and tracking for medication receipt, storage and patient pick-up.<br>• Establish clear guidelines for returning medications to stock in compliance with regulatory requirements and standards.<br>• Define and document staff responsibilities and duties, ensuring accountability of individual roles and seamless workflows across functions. An ongoing education and training program should be implemented to ensure staff remain proficient and up to date on clinical guidelines, regulatory requirements, operational procedures, and technologies. Job descriptions should be provided and regularly reviewed and updated to reflect evolving organizational needs and advancements in patient care. Performance evaluations should be provided no less than annually and professional growth opportunities promoted across all functional areas.<br>• Detailed procedures for recalled, discontinued, expired, damaged, adulterated, misbranded, and/or medications determined to be counterfeit in compliance with federal and state regulations.<br>• Disaster plans and emergency preparedness to address potential disruptions, including loss of power, severe weather, and other emergency situations should include a robust data backup and systems recovery plan to protect patient information and maintain continuity of operations through remote access to critical systems. Recovery systems, data backup, and remote access should be tested regularly. Protocols should be established for maintaining telephone support, communication plans, coordinating with external pharmacies to facilitate seamless prescription transfer if operations are temporarily interrupted. Periodic emergency preparedness drills should be performed, and an emergency plan should be developed and distributed to staff.<br>• Compliance with HIPAA requirements regarding personal health information. |
| **3.9.** EMR and pharmacy dispensing system infrastructure | **3.9.1.** Integrate the practice's EMR, pharmacy dispensing system, and practice management or other applicable systems to enable seamless bidirectional, real-time data exchange where possible. Integrate capabilities with external systems, such as transport vendors and specialty pharmacies to facilitate care coordination and prescription tracking. |
| | **3.9.2.** Equip workstations with dual or ultrawide screens to optimize workflow efficiency, allowing simultaneous access to EMR and pharmacy dispensing programs. Utilize cloud-based or hybrid system architectures to enhance accessibility, scalability, and disaster recovery readiness. |
| | **3.9.3.** Ensure access to multifunctional devices such as secure network-connected printer, copier, fax, and/or scanner machines for documentation, communication and prescription processing. |
| | **3.9.4.** Provide barcode scanners for inventory management and electronic verification of prescriptions. |
| | **3.9.5.** Implement secure mobile devices or tables for patient counseling, inventory review or EMR updates, particularly in telehealth scenarios. |
| | **3.9.6.** Ensure compliance with the latest HIPAA requirements and cybersecurity best practices, including multifactor authentication, encryption, and regular penetration testing. User access level controls should be established based on roles and responsibilities to reduce the risk of unauthorized data exposure. |

| MEDICALLY INTEGRATED DISPENSING PHARMACY (MIP): ASCO-NCODA STANDARDS UPDATE | |
|---|---|
| **Topic** | **Standard** |
| **3.10.** Processes and guidance for handling of medication | **3.10.1.** Establish and maintain robust safety protocols consistent with USP <800> Standards, ASCO Standards for Safe Handling, and other relevant occupational health guidelines and provide regular competency training to ensure staff understanding of proper handling, storage, and disposal procedures. Implement personal protective equipment requirements tailored to each task, including gloves, gowns, and masks or respirators, to minimize exposure risk. Establish protocols for handling spills, exposure incidents or emergencies, including easy access to spill kits and immediate reporting procedures. |
| | **3.10.2.** Develop protocols for receiving medication orders aligned with USP standards, the NIOSH guidelines, and OSHA regulations to mitigate occupational hazards. Ensure dedicated space and process for unpacking and inspecting hazardous drugs and secure medications chain of custody from receipt to patient delivery. |
| | **3.10.3.** Provide patients with education on safe handling and disposal of sharps, including the use of FDA-cleared sharps containers, ensuring emphasize on risks of improper disposal. Maintain a resource guide of authorized sharps disposal sites or mail back programs. |

**ABBREVIATIONS:** **EMR:** electronic medical record; **FDA:** U.S. Food and Drug Administration; **HIPAA:** Health Insurance Portability and Accountability Act; **LDD:** Limited Distribution Drug; **MIP:** medically integrated dispensing pharmacy; **NIOSH:** National Institute for Occupational Safety and Health; **OSHA:** Occupational Safety and Health Administration; **P&P:** policies and procedures; **SOP:** standard operating procedures; **USP:** US Pharmacopeia

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# Oncology Optimized Limited Distribution (OOLD)

NCODA developed the Oncology Optimized Limited Distribution (OOLD) model to bring transparency, coordination and patient-centered care to the distribution of anticancer medications.

LEARN MORE:

OOLD is designed first and foremost to support medically integrated pharmacies (MIPs), ensuring that patients benefit from timely access, coordinated care, and improved outcomes. As part of this model, PBM-affiliated mail-order specialty pharmacies are excluded, while non-PBM pharmacies may dispense to provide access for practices without an MIP.



The **OOLD Search Tool** delivers essential therapy details-brand and generic names, indications, manufacturers, and distribution models. By classifying medications as Open Oncology Optimized Limited Distribution, or PBM-Influenced Limited Distribution, it supports informed decisions that enhance patient care and streamline access.

The **MIP Search Tool** quickly identifies Medically Integrated Pharmacies (MIPs) within oncology practices and highlights alternative ordering options. It supports integrated dispensing models that enhance care coordination, improve adherence, and optimize oncology outcomes.

These searchable NCODA resource are designed to assist oncology teams in navigating the complexities of oral anticancer medication distribution.
***- Access these resources through the QR code above.***

**OOLD is an NCODA initiative dedicated to directly supporting the MIP and enhancing patient care.**
**For questions about OOLD or to connect with NCODA to learn more, please email contact@ncoda.org.**

# ONCOLOGY OPTIMIZED LIMITED DISTRIBUTION

# REDEFINING ONCOLOGY DISTRIBUTION

**By Jonas Congelli, RPh**

The number of available oral anticancer medications has steadily increased over the past two decades, with oral medications playing a major role in the treatment of multiple tumor types.[1] Alongside this evolution, the medically integrated dispensing pharmacy (MIP) has become a best-in-class model for dispensing anticancer therapies while preserving a high standard of coordinated, patient-centered care.

Jonas Congelli

NCODA defines an MIP as a dispensing pharmacy within an oncology center of excellence that supports a patient-centered, multidisciplinary team approach.[2] This model enables real-time communication across the care team, improves access to anticancer therapies, and enhances outcomes by keeping treatment within the clinic's workflow. By integrating medication distribution directly into the oncology practice, MIPs streamline therapy initiation and monitoring, reduce treatment delays, and create a seamless experience for both patients and providers.[3,4,5]

## ADVANCING MEDICALLY INTEGRATED, PATIENT-CENTERED CARE THROUGH ONCOLOGY OPTIMIZED LIMITED DISTRIBUTION

While MIPs are well-positioned to provide timely, coordinated care, their ability to dispense oral anticancer medications is often limited by how manufacturers choose to distribute their therapies.[6,7] In some cases, manufacturers may include Pharmacy Benefit Manager- (PBM) affiliated mail-order specialty pharmacies (PBM-SPs, those vertically integrated with large PBMs and payers, as part of their distribution network. This can prevent MIPs from filling prescriptions in-house, forcing patients to receive medications from external pharmacies that are disconnected from their care team.[7]

Limited distribution networks (LDNs) were originally intended to ensure clinical expertise and oversight of specialty medications,[8] but when PBM-SPs dominate these networks, it can disrupt continuity of care and delay therapy initiation. As more oral therapies come to market, the structure of these distribution networks plays an increasingly important role in the quality and coordination of cancer care.

This paper explores the interdependent relationships between the MIP and LDNs, highlighting how thoughtful distribution design can strengthen patient care and support optimal treatment outcomes. It also provides historical context for how these models have evolved and introduces updated terminology to bring clarity to the varying structures of LDNs across oncology.

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## MEDICALLY INTEGRATED PHARMACY: A CLOSER LOOK

As stated, the MIP promotes a patient-centered multidisciplinary team approach into a clinic's workflow.[3] Direct dispensing enables enable faster therapy initiation, streamlined communication, and more effective management of oral anticancer therapies.[2]

While MIPs may vary in structure — some operating as formal pharmacies and others through alternative dispensing models — the defining feature is their integration with the clinical care team. This model allows oncology practices to manage medication access directly, aligning pharmacy services with clinical decision-making to support better patient outcomes.

Unlike traditional specialty pharmacies — which often operate independently from the oncology care team — MIPs are embedded directly within the clinic. This integration allows for real-time collaboration across the care team, enabling streamlined access to medications, timely clinical interventions, and a more seamless experience for patients.

The differences between traditional mail-order specialty pharmacies and MIPs are especially clear when looking at the patient journey. In the MIP setting, patients are introduced to the care process early, often receiving medication counseling and insurance navigation at the time of their initial consultation.

With full access to the electronic medical record (EMR), the MIP team can efficiently complete prior authorizations, verify clinical appropriateness, and offer personalized financial support. Throughout treatment, multiple care team members remain actively involved, monitoring and adjusting therapy based on real-time patient data.

External mail-order specialty pharmacies also provide important services but face limitations in accessing clinical information and coordinating with providers. This can result in delays in communication or therapy initiation, especially when mail-order delivery is the only fulfillment option.[9]

Also, due to the operational flow of the prescription-filling process, including time for delivery via mail, errant fills are increased, leading to waste and increase in cost to the overall healthcare system. In contrast, MIPs can offer more tailored delivery and education options that align with each patient's unique needs, streamlining the fulfillment process leading to increased cost avoidance and less waste.

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## MIP/SP PATIENT JOURNEY MAP

| PHASE 1 | PHASE 2 | PHASE 3 | PHASE 4 | PHASE 5 | PHASE 6 |
|---|---|---|---|---|---|
| Prescription issued by Prescriber/initial Consultation | Insurance Verification and Financial Counseling | Clinical Verification and Medication | Patient Education and Support | Medication Delivery | Ongoing Monitoring and Continuous Integrated Team Coordination |
| • Oncologist<br>• APP<br>• Pharmacist Nurse | • Pharmacy Technicians<br>• Financial Counselors<br>• Social Case Workers | • Pharmacists in consultation with prescriber | • Oncologist/APP<br>• Pharmacist<br>• Nurse<br>• Nurse Navigator | • Pharmacist<br>• Pharmacy Technicians<br>• Nurses<br>• Courier/Delivery Staff | • The entire medically integrated care team |
| MIP: Initial consult involves introduction to MID + expectations + initial medication counseling | MIP: Access to EMR and initial intake documents increases efficiency of PA process and Financial Navigation | MIP: Clinical Pharmacists provide comprehensive chart workup due to access to EMR and patient records | MIP: Education typically provided before and during treatment by different members of the integrated care team | MIP: Are typically flexible regarding medication delivery, and can tailor delivery needs to the specific patient | MIP: Multiple members of the integrated team participate in monitoring of patient on therapy often documented in the EMR |
| SP: May be fragmented due to potential initial outreach hurdles | SP: May be fragmented due to limited EMR access, and serving as middleman between practice and Insurance | SP: Clinical information may be based off pharmacy and insurance records, limited EMR access represents a barrier to thorough clinical review | SP: Education typically provided at initiation and as needed per patient request | SP: If an SP does not have local options, mail order can be a barrier for some patients | SP: Monitoring occurs; however, communication methods with integrated care team is fragmented |

## MAIL-ORDER SPECIALTY PHARMACY MODELS AND THEIR RELATIONSHIPS TO THE MIP

Mail-order specialty pharmacies play a vital role in supporting access to oncology therapies. However, the structure and alignment of these pharmacies can significantly influence how well they integrate with the clinical care team — and ultimately, how effectively they support the patient experience.

Some mail-order specialty pharmacies, such as Onco360 and Biologics by McKesson, operate independently of PBMs and maintain collaborative relationships with oncology practices. These organizations often work closely with MIPs, supporting seamless communication, efficient medication access, and continuity of care. Similarly, Prime Specialty Pharmacy — while affiliated with a PBM — has developed platforms like IntegratedRx that enable MIPs to remain closely involved in the dispensing process. In these models, patient choice is preserved, and care coordination remains strong.[10]

Other mail-order specialty pharmacies are part of large vertically integrated healthcare systems, where the pharmacy operates under the same ownership as a PBM or health plan (**Figure 1**). In these arrangements, prescriptions are frequently routed through the PBM-affiliated pharmacy by default, regardless of provider recommendation or patient preference.

This process, often referred to as prescription steerage, can limit the involvement of the oncology care team, delay therapy initiation, and contribute to fragmented care.[11, 12]

The distinction lies not in PBM affiliation alone, but in whether the mail-order specialty pharmacy model allows for clinical collaboration, patient-centered flexibility, and alignment with the oncology care team. When MIPs are enabled to work alongside specialty pharmacy partners, the result is more coordinated care, more informed decision-making, and better support for patients throughout their treatment journey.

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## FIGURE 1: VERTICAL INTEGRATION OF MAJOR U.S. HEALTHCARE COMPANIES

*ADAPTED FROM FEIN AJ. DRUG CHANNELS | APRIL 9, 2025*[13]


PBM = pharmacy benefit manager; GPO = group purchasing organization; LTC = long-term care

1. Prime Therapeutics sources formulary rebates from—and has a minority ownership interest in—Ascent Health Solutions, which is part of Cigna's Evernorth segment.
2. Synergie is a buying group focused on medical benefit drugs. Its ownership includes the Blue Cross Blue Shield (BCBS) Association, Prime Therapeutics, Elevance Health, and other independent BCBS health plans.
3. Prime Therapeutics Pharmacy was previously known as Magellan Rx Pharmacy. Prime's clients have the option to use Express Scripts for mail/specialty pharmacy services.
4. In 2022, Cigna invested $2.7 billion for an estimated 14% ownership stake in VillageMD. In 2024, it wrote down the full value of this investment. Walgreens Boots Alliance owns a majority of VillageMD.
5. Centene began outsourcing its PBM operations to Express Scripts in 2024. In 2023, Centene rebranded its Envolve Pharmacy Solutions pharmacy benefit subsidiary as Centene Pharmacy Services.
6. CVS Caremark provides certain PBM services to CarelonRx business. CarelonRx also sources formulary rebates from—and has a minority interest in—Zinc Health Services, which is a subsidiary of CVS Health.

Source: *The 2025 Economic Report on U.S. Pharmacies and Pharmacy Benefit Managers*, Exhibit 261. Exhibit does not illustrate every subsidiary business operated by each company.

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## LIMITED DISTRIBUTION NETWORKS: BACKGROUND AND IMPACT

Limited Distribution Networks (LDNs) were originally developed to ensure safe and effective delivery of high-touch specialty medications. By partnering with a select group of pharmacies, manufacturers aimed to streamline handling, provide specialized clinical oversight, and improve patient support — particularly for therapies with complex storage, administration, or monitoring requirements.[8]

In recent years, increased consolidation across the healthcare landscape has led to increased vertical integration of mail-order specialty pharmacies with large PBMs and payers. While these changes may support operational alignment for some stakeholders, they have also contributed to a disruption of the original model benefit, leading to pharmacy steerage regardless of patient or provider choice.[11,12]

The way a distribution network is structured has a measurable impact on whether prescriptions are filled within the oncology clinic or diverted elsewhere. For patients treated within integrated oncology practices, the ability to fill prescriptions through their MIP supports stronger relationships, faster therapy starts, better adherence, reduced costs, and reduced fragmentation. In contrast, when prescriptions are routed through PBM-SPs, care coordination can be disrupted — slowing down access and limiting the oncology team's involvement in managing the patient's therapy.[3,4,5,14]

**Data shows that the fewer PBM-SPs included in a network, the higher the prescription capture rate within the MIP. In networks that exclude these entities entirely, MIPs retain 98% of prescriptions across all payers (95% in commercial plans).**

Data shows that the fewer PBM-SPs included in a network, the higher the prescription capture rate within the MIP. In networks that exclude these entities entirely, MIPs retain 98% of prescriptions across all payers (95% in commercial plans). That retention drops sharply as vertically integrated pharmacies are added. With one included, MIP capture falls to 79% (40% in commercial); with three or more, retention drops to just 58% (15% in commercial plans).[14]

The structure of the pharmacy network not only influences patient experience and access. It also has a direct impact on clinical and financial outcomes. When prescriptions are filled within the oncology practice, care teams can intervene more quickly, monitor adherence in real time, and make timely adjustments to therapy that leads to increased cost avoidance and less waste. This coordination leads to improved treatment continuity and greater patient satisfaction.[15]

Recent data further supports the value of integrated dispensing. A 2024 analysis by Prime Therapeutics found that patients who received oral oncolytics through integrated physician dispensing had significantly lower total costs of care compared to those using nonintegrated dispensing channels. After adjusting for patient characteristics, integrated models demonstrated a reduction of $5,379 in total healthcare spending and $6,069 in medical benefit costs per patient. These findings highlight how integrated dispensing supports not only high-quality care, but also meaningful value across the healthcare system.[16]

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### TABLE 1: PRESCRIPTION CAPTURE RATE BY NETWORK AND INSURANCE TYPE [14]

| PHARMACY NETWORK | PRESCRIPTION CAPTURE RATE (ALL PAYORS) | PRESCRIPTION CAPTURE RATE (COMMERCIAL ONLY) |
|---|---|---|
| No PBM-SP | 98% | 95% |
| 1 PBM-SP | 79% | 40% |
| 3+ PBM-SPs | 58% | 15% |

## INTRODUCING CLEAR TERMINOLOGY FOR LIMITED DISTRIBUTION NETWORKS

While LDNs have become a common part of oncology drug delivery, there is currently no standardized language to describe the various structures that exist. This lack of clarity can create confusion for providers, patients, and manufacturers alike — particularly as the number of oral anticancer therapies continues to grow.

To support greater clarity in distribution strategy and its impact on patient care, NCODA has introduced new terminology for describing LDNs.

**NCODA's updated model includes three distribution categories with four definitions based on the level of integration and the type of specialty pharmacies included in the network.**

These definitions are intended to standardize language across the oncology ecosystem, help providers assess their ability to retain prescriptions within the care team, and support meaningful dialogue with manufacturers about access and outcomes.

NCODA's updated model includes three distribution categories with four definitions based on the level of integration and the type of specialty pharmacies included in the network.

This revised terminology allows stakeholders to clearly distinguish between network designs and their clinical implications — ensuring that distribution decisions are better aligned with patient-first oncology care.

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## LDN TERMINOLOGY TABLE

| DISTRIBUTION MODEL | DEFINITION | PATIENT & MIP IMPACT | EXAMPLES |
|---|---|---|---|
| **Closed Distribution** | Medications available only through a highly restricted, manufacturer-designated network of specialty pharmacies, often due to Risk Evaluation and Mitigation Strategies or special handling requirements. | Tightly controlled access; may exclude MIPs entirely. Can delay therapy initiation and fragment care; influence is limited due to regulatory safeguards. | Revlimid, Pomalyst, Thalomid |
| **Oncology Optimized Limited Distribution** | Networks that exclude vertically integrated PBM specialty pharmacies (PBM-SPs), supporting dispensing through MIPs and independent mail-order specialty pharmacies. | Enables high care coordination; 98% retention overall (95% commercial). Improves adherence, patient satisfaction, reduces waste and cost, and supports integrated care. | Onco360, Biologics by McKesson, Prime Specialty Pharmacy (via IntegratedRx) |
| **PBM-Influenced Limited Distribution** | Networks that include one or two vertically integrated PBM specialty pharmacies, often shaped by payer or PBM pressure. | Reduces MIP retention (LDD1: 79%/40% commercial; LDD3+: 58%/15% commercial); increases care fragmentation and therapy delays. | Accredo (Express Scripts), CVS Specialty (Caremark) and Optum Rx (UHC) |
| **Open Distribution Network** | Medications are widely available through retail, hospital and mail-order pharmacies without restrictions. Includes Optum, CVS Caremark, and Express Scripts PBM-affiliated mail-order pharmacies. | Drastically reduces MIP retention (LDD3+: 58%/15% commercial); increases care fragmentation and therapy delays due to substantial decrease in MIP capture rate. | |

## ADVANCING A PATIENT-CENTERED APPROACH TO ONCOLOGY DISTRIBUTION

NCODA strongly supports the Oncology Optimized Limited Distribution model as the preferred standard for oral anticancer therapy access. By keeping prescriptions within the integrated oncology team setting and eliminating the influence of vertically integrated specialty pharmacies, this model enables the most coordinated, efficient, and patient-focused care. It reflects the core values of medically integrated dispensing and offers the clearest path to improving outcomes while preserving choices for both patients and providers.

NCODA recognizes that implementing a fully independent distribution model may not be feasible for all manufacturers. Market dynamics — including formulary restrictions, payer negotiations, and therapeutic area complexity — can introduce significant challenges. However, these realities do not diminish the importance of working toward a more transparent, patient-centered approach to drug distribution.

The Oncology Optimized Limited Distribution model represents a tangible step forward — one that prioritizes in-practice dispensing, fosters stronger patient-provider relationships, and supports high-quality, integrated care. Even incremental progress toward this model has a meaningful impact. As data has shown, limiting the number of vertically integrated specialty pharmacies in a distribution network improves prescription retention within the oncology clinic and leads to better adherence, improved patient satisfaction, lower costs, and improved outcomes.

We also recognize that healthcare is constantly evolving. In an ideal future, patient steerage would no longer be a barrier, and comprehensive policy solutions — such as pending PBM legislation — may fundamentally shift how access and distribution are managed. Should that landscape change, the need for terminology like this may diminish. Today, patients and providers need clarity. These definitions serve as a practical tool to evaluate access, communicate impact, and advocate for models that align with the best interests of those receiving care.

As an organization grounded in patient-centered and collaborative values, NCODA will continue to advocate for distribution models that reduce barriers to access and empower oncology teams to deliver the best possible care. We encourage pharmaceutical manufacturers, specialty pharmacy partners, and payers to join us in adopting terminology, tools, and practices that bring clarity to the distribution landscape — and ultimately, improve the cancer care journey for every patient.

Together, we can advance a more ethical, transparent, and outcomes-driven future in oncology care.

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# CENTER OF EXCELLENCE MEDICALLY INTEGRATED PHARMACY ACCREDITATION

## MEDICALLY INTEGRATED PHARMACY ACCREDITATION

As the leading nonprofit association for the patient-centered medically integrated oncology community, NCODA's Center of Excellence Medically Integrated Pharmacy (MIP) Accreditation Program is committed to empowering pharmacies to deliver positive, patient-centered care by providing leadership, expertise, quality standards and best practices.

The NCODA Accreditation Program is based on compliance with the ASCO/NCODA Patient-Centered Standards for Medically Integrated Dispensing.

The ASCO/NCODA Quality Standards, published in the *Journal of Clinical Oncology*, were created to elevate oncology practices' performance by focusing on dispensing oral medications in an outpatient setting. These Quality Standards help optimize patient compliance while allowing practices to be more cost-effective.

We recognize the importance of developing, endorsing, and continually improving these Quality Standards. That's why NCODA works with experts within oncology practices to make sure we're serving both patients and practices to the fullest extent.

### NCODA COE MIP PROGRAM HIGHLIGHTS

▲ First and only accreditation program designed specifically for medically integrated pharmacies;

▲ Innovative patient-centered standards;

▲ Without the presence of administrative burdens;

▲ Designed to improve patient outcomes, enhance quality of services, and decrease costs;

▲ Provides a framework to foster improvement in medication adherence, reduce waste due to cost avoidance, shorten medication fill times, and improve patient and clinician satisfaction;

▲ Benefits MIPs through adoption of quality standards and best practices and tracking valuable patient outcomes; and

▲ Eliminates clinical fragmentation through seamless coordination with the patient's Care Plan Protocol.

### PHARMACY ACCREDITATIONS

NCODA offers tailored MIP Accreditation programs to meet the unique needs of oncology, multispecialty, and oncology-focused multispecialty practices — recognizing excellence in patient-centered care across diverse healthcare settings: the MIP accreditation program that is designed to meet the unique needs of oncology practices — recognizing excellence in patient-centered care across diverse healthcare settings.

▲ **NCODA Center of Excellence (CoE) Accreditation:** Designed specifically for Oncology MIPs, the NCODA CoE Accreditation recognizes practices that demonstrate the highest standards of quality, safety, and clinical excellence. Built on the MIP model, the CoE framework elevates the patient experience by fostering seamless collaboration across the entire care team — including providers, pharmacists, nurses, financial advocates and support staff. This team-based approach ensures coordinated treatment planning, optimized medication management, proactive patient engagement and measurable outcomes that improve both clinical results and the overall care journey.

▲ **Canadian Pharmacy Accreditation Services (CPAS):** An NCODA company, CPAS reflects NCODA's expanding commitment to advancing patient-centered pharmacy care across Canada. Built on NCODA's proven MIP model, CPAS offers a rigorous yet accessible accreditation pathway for pharmacies of all sizes and specialties. Through a collaborative, patient-first approach, CPAS supports Canadian pharmacies in achieving the highest standards of clinical excellence, quality and safety.

For more information about **NCODA's Center of Excellence Medically Integrated Pharmacy Accreditation Program**, scan the QR code above.

### NCODA QUALITY STANDARDS

NCODA's comprehensive framework for Medically Integrated Dispensing (MID) services is designed to advance patient-centered care, efficient and coordinated workflows, and data-driven clinical decision-making. This structured approach ensures that medically integrated teams deliver consistent, high-quality care while continuously improving outcomes and the overall patient experience.

▲ **Patient-Focused:** When establishing MID services, organizations must prioritize maximizing patient convenience and support throughout the treatment journey. This includes providing timely access to therapy, reducing barriers to medication initiation, ensuring financial navigation and assistance, and delivering individualized education and proactive clinical monitoring.

MID programs also enhance the patient experience through the use of treatment support kits, which provide patients with clear medication instructions, symptom management tools, and practical resources to help them confidently begin therapy. Combined with ongoing engagement and follow-up, these efforts drive improved adherence, empower patients in their care

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# NCODA CoE MEDICALLY INTEGRATED PHARMACY ACCREDITATION: FREQUENTLY ASKED QUESTIONS

### HOW WILL NCODA COE MIP ACCREDITATION HELP MY ORGANIZATION?

The accreditation standards provide a framework to foster improvement in medication adherence, reduce waste due to cost avoidance, shorten medication fill times and improve patient and clinician satisfaction. Our accreditation program benefits Medically Integrated Pharmacies (MIPs) through the adoption of quality standards and best practices and tracking valuable patient outcomes. The NCODA CoE MIP accreditation is preferred for the Prime Therapeutics IntegratedRx Oncology program.

### WHAT IS THE COST OF THE ACCREDITATIONS?

NCODA CoE MIP Accreditation Programs are sustainable, meaningful and budget-friendly. Our focus is on the patient, not the bottom line. Initial accreditation and subsequent reaccreditations cost $10,000 to $13,500.

### DOES THE PROGRAM OFFER RESOURCES AND SUPPORT?

NCODA provides comprehensive resources and hands-on support throughout the accreditation process — all designed not only to help practices achieve compliance, but to strengthen and enhance patient care.

Practices have the option to purchase accreditation templates developed to support alignment with NCODA accreditation standards. These templates include, but are not limited to, clinical evaluation forms, error logs, new patient packets, staff training checklists, and MIP standard operating procedures (SOPs). These structured tools guide practices step-by-step through the accreditation process while promoting standardized workflows, improved care coordination, and a consistent, high-quality patient experience.

Each practice is assigned a dedicated reviewer with expertise in pharmacy accreditation and pharmacy operations. This reviewer serves as a trusted resource throughout the entire process and is available by phone or email to answer questions, provide clarification, and assist with ensuring compliance. Their operational insight helps practices build efficient systems that support both regulatory standards and optimal patient outcomes.

During the four-month self-study period, pharmacies work closely with the NCODA Accreditation Team to strengthen policies and procedures, bring documentation up to current standards, and determine an appropriate readiness date for the on-site review.

The NCODA team provides ongoing, real-time feedback, allowing MIPs to confirm compliance before implementing new processes. This proactive guidance not only minimizes noncompliant findings in the final self-study review report, but also helps practices establish sustainable processes that enhance patient safety, improve medication management, and elevate the overall quality of care.

### WHAT IS THE ACCREDITATION PROCESS?

The accreditation process consists of five stages: agreement, self-study, onsite review, accreditation review committee evaluation and final decision. The full process typically takes between 8 and 12 months to complete.

## ACCREDITATION

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and elevate overall patient satisfaction.

▲ **Foundational Elements:** Successful implementation of an MID service requires intentional design, operational discipline and strong clinical infrastructure. NCODA developed foundational standards and systems specifically to help MID organizations achieve and sustain the highest level of quality care.

This section outlines the essential processes, operational structures, and optimized workflows that support thriving and sustainable MID services — ensuring consistency, scalability, compliance and continuous quality improvement.

▲ **Health Information Technology:** NCODA practices are data-driven organizations that leverage integrated technology systems to accurately manage each patient's condition and treatment across the entire care continuum. Through real-time documentation, shared clinical visibility, and coordinated communication, pharmacists, providers, nurses and support staff collaborate seamlessly to deliver aligned, high-quality care.

This integrated infrastructure supports proactive treatment management by maximizing duration of therapy and dose intensity, increasing medication adherence, reducing adverse drug reactions, minimizing medication waste and improving overall quality of care.

The collaborative, technology-enabled environment within medically integrated organizations empowers both patients and physicians to make informed decisions in real time — strengthening clinical outcomes while enhancing the overall patient experience.

# MEDICALLY INTEGRATED PHARMACY: CORE CLAIMS

As defined by NCODA, MIPs are dispensing pharmacies within oncology centers of excellence that promote a patient-centered, multidisciplinary team approach. These outcome-based collaborative and comprehensive models involve oncology healthcare professionals and other stakeholders who focus on the continuity of coordinated quality care and therapies for cancer patients. The pillars of MIPs that lead to excellence in patient care are based on core activities related to abandonment, time to fill, adherence, patient satisfaction, patient education, financial, and cost avoidance and waste. Evidence to support the value of these claims is summarized in this document.

## ABANDONMENT: SUPPORTING EVIDENCE

### 1. Medication prescription abandonment is defined as a patient making the decision to not fill or to fill and never pick up a prescription.

| CLAIM # | KEY EVIDENCE-BASED CLAIM | REFERENCE |
|---|---|---|
| 1.1 | National abandonment rates are reported to be at 18%. | Doshi GK, et al. JCO Oncol Pract. 2023;19(11suppl):66. |
| 1.2 | Factors related to pharmacy plan, cost-sharing amount and concurrent prescription activity are significant drivers of oral oncolytic abandonment. | Streeter SB, et al. Am J Manag Care. 2011;17(Suppl 5): SP38-44. |
| 1.2.1 | Higher OOP costs are associated with higher rates of abandonment. | Doshi GK, et al. JCO Oncol Pract. 2023;19(11suppl):66. |
| 1.2.2 | Higher out-of-pocket (OOP) costs are associated with higher rates of delayed initiation and abandonment of insurer-approved new prescriptions for novel oral oncolytics. | Doshi JA, et al. JCO. 2018;36(5):476-482. https://doi.org/10.1200/JCO.2017.74.5091. |
| 1.2.3 | The likelihood of abandonment increases fourfold when OOP costs exceed $500. | From https://communityoncology.org/pdfs/ fact-sheet-oral-oncolytics.pdf. |
| 1.2.4 | Abandonment rates reached as high as 49% in patients with an OOP >$2,000 for a new oral oncolytic prescription. | Doshi JA, et al. JCO. 2018;36(5):476-482. https://doi.org/10.1200/JCO.2017.74.5091 |
| 1.2.5 | Issues related to the prior authorization process lead to abandonment (in a 2020 survey of physicians, 78% report that PA can at least sometimes led to abandonment). | 2020 AMA Prior Authorization Physician Survey. https://www.ama-assn.org/system/files/2021-04/ prior-authorization-survey.pdf. |
| 1.2.6 | Patients with ≥5 prescription claims processed within in the previous month had 50% higher likelihood of abandonment than patients with no other prescription activity | Streeter SB, et al. Am J Manag Care. 2011;17(Suppl 5): SP38-44. |

### 2. MIPs lower the rate of oral oncolytic prescription abandonment.

| CLAIM # | KEY EVIDENCE-BASED CLAIM | REFERENCE |
|---|---|---|
| 2.1 | Prescription abandonment rates can be lowered to <1% with MIP. | Doshi GK, et al. JCO Oncol Pract. 2023;19(11suppl):66. |
| 2.2 | In a study of Medicare beneficiaries, MIP dispensing resulted in an increase in percent of men filling a prescription for abiraterone and/or enzalutamide. | Hill D, et al. JNCI Cancer Spectrum. 2023;7(5): pkad062. |
| 2.3 | The MIP team lowers the rate of abandonment through coordinated activities by the pharmacy and clinical teams in integrated patient assistance activities (e.g., copay assistance programs, charitable grant funding, manufacturer-provided free drug programs). | Doshi GK, et al. JCO Oncol Pract. 2023;19(11suppl):66. Mullangi S, et al. JCO Oncol Pract. 2024;20(5): https://doi.org/10.1200/OP.23.00691. |

# TIME TO FILL: SUPPORTIVE EVIDENCE

## 1. Time to fill is the time between when a prescription is written to when the patient takes their first dose.

| CLAIM # | KEY EVIDENCE-BASED CLAIM | REFERENCE |
|---|---|---|
| 1.1 | The median number of days from oral oncolytic prescription to patient receipt of the drug has been reported as 7 to12 days, showing that obtaining these medications is complex and prone to unwanted delays. | Marineau A, et al. J Oncol Pharm Pract. 2023; 29:1144-153. |
| 1.2 | Time to first fill within an MIP is impacted by many factors including benefits verification, prior authorization, patient financial assistance, initial shipment, and contact with the patient. | Khrystolubova N, et al. Am J Manag Care. 2022; 28(6 Spec No.): SP316-SP323. |
| 1.3 | Patient-identified barriers to time to fill include communication issues, prior authorization, and cost. | Gabriel MH, et al. J Manag Care Spec Pharm. 2022 Nov; 28(11): 10.18553/jmcp.2022.28.11.1244. |
| 1.4 | An ACCC membership survey on management of oral oncolytics revealed use of mail-order specialty pharmacies leads to delays for reasons including taking a long time to process the order (68%). | https://www.accc-cancer.org/docs/projects/pdf/implementing-oral-oncolytics-final.pdf?sfvrsn=274a112_0. |

## 2. Use of a MIP reduces the time to fill oral oncolytic prescriptions.

| CLAIM # | KEY EVIDENCE-BASED CLAIM | REFERENCE |
|---|---|---|
| 2.1 | Time to fill is lower with MIPs vs external pharmacies | Russell M, et al. J Manag Care Spec Pharm. 2024;30:352-362.<br>Goldbach AP, et al. J Hematol Oncol Pharm. 2022;12:241-247.<br>Academia EC, et al. J Manag Care Spec Pharm. 2021; 27:1438-1446. |
| 2.1.1 | Average time to treatment initiation was six days shorter for patients whose specialty medications were filled at MIPs vs an external pharmacy. | Russell M, et al. J Manag Care Spec Pharm. 2024;30:352-362. |
| 2.1.2 | One study demonstrated a doubling in the total time to first fill of palbociclib (12 days vs six days) when patients used an external specialty pharmacy compared with an MIP. | Goldbach AP, et al. J Hematol Oncol Pharm. 2022;12:241-247. |
| 2.1.3 | Time to fill oral oncolytics was significantly lower (median, 22 days) using internal MIP vs external pharmacies. | Academia EC, et al. J Manag Care Spec Pharm. 2021;27:1438-1446. |
| 2.1.4 | The average time to first fill of dasatinib, palbociclib and ibrutinib was three, four and 4.2 days, respectively in one community MIP. | Khrystolubova N, et al. Am J Manag Care. 2022; 28(6 Spec No.): SP316-SP323. |
| 2.2 | Frequent communication and follow-up with payers are needed for the first few cycles. | Marineau A, et al. J Oncol Pharm Pract. 2023; 29:1144-153. |
| 2.3 | Patients who fill their oral oncolytic prescriptions using an MIP (vs an external specialty pharmacy) have significantly shorter 4.21-day time to fill. | McCabe CC, et al. Am J Health Syst Pharm. 2020;77:1118-1127. |

# ADHERENCE: SUPPORTIVE EVIDENCE

## 1. Adherence refers to the extent to which a patient takes a medication as prescribed, focusing on frequency, time ingested and dose.

| CLAIM # | KEY EVIDENCE-BASED CLAIM | REFERENCE |
|---|---|---|
| 1.1 | Persistence relates to the time over which a patient continues treatment. | Menditto E, et al. Int J Environ Res Public Health. 2021; 18:4872. |
| 1.2 | Primary nonadherence is the rate of a new prescription being issued but not filled within an acceptable time. | Zuckerman A, et al. J Manag Care Spec Pharm. 2023 Jul; 29(7): 10.18553/jmcp.2023.29.7.740. |
| 1.3 | Secondary nonadherence refers to medication not being taken as prescribed once the prescription is filled. | Lam WY and Fresco P. Biomed Res Int. 2015; 2015:217047. |
| 1.4 | Nonadherence to oral oncolytics includes over-adherence (intentionally or unintentionally taking too much medication in a prescribed period, which can lead to increased toxicity) or under-adherence (taking an inadequate amount of prescribed medication). | Akerley A and Karl C. J Oncol Nav Survivorship. 2021;12:6. https://www.jons-online.com/ issues/2021/june-2021-vol-12-no-6/3808-call-back-using-the-phone-to-promote-adherence-to-oral-antineoplastic-agents. |
| 1.5 | A substantial proportion of patients struggle to adhere to oral oncolytics as prescribed | Greer JA, et al. Oncologist. 2016; 21:354-76. |
| 1.5.1 | Reasons for nonadherence in one study included patient decision (25%), medication not approved by insurance (13%), intentional delays based on provider/patient request (13%), medication changed (12%), clinical decline (12%), death (12%), no longer appropriate (7%) or unaffordable copay (7%). | Zuckerman A, et al. J Manag Care Spec Pharm. 2023 Jul; 29(7): 10.18553/jmcp.2023.29.7.740. |
| 1.5.2 | Impactful factors identified as affecting compliance to oral oncolytics are patient's confidence, health literacy, perception of treatment, quality of life, social support and complexity of chemotherapy regimen. | Signorelli J, et al. J Oncol Pharm Pract. 2023. https://doi.org/10.1177/10781552231208442. |

## 2. MIPs improve patient adherence to oral oncolytics.

| CLAIM # | KEY EVIDENCE-BASED CLAIM | REFERENCE |
|---|---|---|
| 2.1 | Patients who fill their oral oncolytic prescriptions using an MIP (vs an external specialty pharmacy) have significantly higher adherence (in one study as measured by MPR and PDC). | McCabe CC, et al. Am J Health Syst Pharm. 2020;77:1118-1127. |
| 2.2 | The rate of nonadherence with newly prescribed oral oncolytics from MIPs is low (11% in one study). | Zuckerman A, et al. J Manag Care Spec Pharm. 2023 Jul; 29(7): 10.18553/jmcp.2023.29.7.740. |
| 2.3 | Adherence rates with MIPs are higher than with specialty pharmacies. | Leach JW, et al. J Clin Oncol. 2022;40(16 suppl): e18645. |

## 3. Adherence leads to better outcomes.

| CLAIM # | KEY EVIDENCE-BASED CLAIM | REFERENCE |
|---|---|---|
| 3.1 | Poor adherence to oral oncolytics can impede treatment efficacy and decrease response rates. | Marineau A, et al. J Oncol Pharm Pract. 2023; 29: 1144-153. |
| 3.2 | Nonadherence is associated with myriad adverse consequences, increase in physician visits, increased hospitalization rates, longer hospital stays, decreased patient satisfaction, poor patient-provider relationships and compromised disease outcomes (e.g., decreased time to relapse, decreased survival). | D'Amato. Oncology Issues. 2008. https://www.accc-cancer.org/docs/Documents/ oncology-issues/articles/2003-2016/2008/JA08/ ja08-improving-patient-adherence-with-oral-chemotherapy. |

# ADHERENCE: SUPPORTIVE EVIDENCE (CONTINUED)

## 4. Interventions from members of the MIP multidisciplinary team improve adherence to oral oncolytics.

| CLAIM # | KEY EVIDENCE-BASED CLAIM | REFERENCE |
|---|---|---|
| 4.1 | Interventions to improve adherence include use of reminder systems, management of side effects, discussions of misconceptions on disease or medication efficacy, dosing and administration instructions, strategies for accessing the medication and referral for cognitive behavioral therapy if needed. | Greer JA, et al. Oncologist. 2016; 21:354-76. |
| 4.2 | A multi-institution study of patients with chronic myelogenous leukemia found that an initial education session and follow-up as needed (related to adverse effects, drug interactions and adherence) significantly increased MPR. | Lam MS, et al. J Oncol Pharm Pract. 2016; 22:741-748. |
| 4.3 | In a multiple-institution case-control study that provided an initial education session with a pharmacist and ongoing counseling, daily adherence was significantly improved. | Simons S, et al. Support Care Cancer. 2011; 19:1009-1018. |
| 4.4 | In a case-control study, pharmacist education regarding adverse events and ongoing adherence counseling resulted in increased detection of drug-related errors, and adherence (MPR > 90%). | Ribed A, et al. Int J Clin Pharm. 2016;38:280-288. |
| 4.5 | Nurse-led weekly telephone interventions positively impacted oral adherence (100% in seven patients). | Akerley A and Karl C. J Oncol Nav Survivorship. 2021;12:6. https://www.jons-online.com/ issues/2021/june-2021-vol-12-no-6/3808-call-back-using-the-phone-to-promote-adherence-to-oral-antineoplastic-agents. |

# PATIENT SATISFACTION: SUPPORTIVE EVIDENCE

## 1. MIP activities lead to better patient satisfaction.

| CLAIM # | KEY EVIDENCE-BASED CLAIM | REFERENCE |
|---|---|---|
| 1.1 | Patients prefer to receive their medications through MIPs. | Hanna K. AJMC. 2019;25(6): SP193-SP194. |
| 1.2 | High satisfaction ratings can be attributed to personalized experience patients receive through MIPs. | Bagwell A, et al. J Manag Care Spec Pharm. 2017 Aug; 23(8): 10.18553/jmcp.2017.23.8.815. |
| 1.2.1 | In terms of pure satisfaction, MIP services rank high among patients looking for well-managed and vigilant care with their provider and pharmacy staff. | From https://www.ncoda.org/wp-content/uploads/2020/03/NCODA-Patient-Satisfaction-Surveys-within-Medically-Integrated-Practice.pdf. |
| 1.2.2 | Patient-centered programs, such as centralizing prior authorizations, integrating therapy management into specialty clinics, and creating health coaching options, increase patient satisfaction. | Donovan and Cha. Pharmacy Times. 2023. https://www.pharmacytimes.com/view/key-metrics-that-support-the-integrated-specialty-pharmacy-model. |
| 1.3 | Satisfaction survey data indicate high patient satisfaction with MIPs. | https://www.primetherapeutics.com/news/integratedrx-earns-95-satisfaction-rating/. Doshi G, et al. J Clin Oncol. 2018; 36 (30 suppl):140. Khrystolubova et al. AJMC.2022; 28 (6 Spec No.): SP405-SP406. |
| 1.3.1 | NCODA's Patient Satisfaction Survey results demonstrate an average 86.2 Net Promoter Score for MIPs, and 97% of patients would prefer to fill their oral oncology and/or supportive care medications at the MIP vs an external mail-order specialty pharmacy. | https://www.primetherapeutics.com/news/integratedrx-earns-95-satisfaction-rating/. |
| 1.3.2 | Patient satisfaction surveys at Texas Oncology and Florida Cancer Specialists reveal 94% to 96% satisfaction with MIPs. | Doshi G, et al. J Clin Oncol. 2018;36(30 suppl):140. Khrystolubova et al. AJMC. 2022; 28(6 Spec No.): SP405-SP406. |
| 1.3.3 | Patients enrolled in a pharmacist-led oral chemotherapy program who received their oral TKIs from MIPs were more likely to be satisfied with the care they received than patients not in the program. | Dennison T, et al. J Adv Pract Oncol. 2021; 12:148-157. |

## 2. Patient satisfaction can lead to better patient adherence.

| CLAIM # | KEY EVIDENCE-BASED CLAIM | REFERENCE |
|---|---|---|
| 2.1 | Patients with high satisfaction rates have higher adherence rates to oral oncolytics. | |
| 2.1.1 | CML patients with high satisfaction rates after interactions with their treating doctor about disease information have higher adherence rates to their oral chemotherapy. | Geissler J, et al. J Cancer Res Clin Oncol. 2017;143:1167–1176. |

## 3. Patient satisfaction surveys are critical tools in identifying and addressing opportunities for improvement.

| CLAIM # | KEY EVIDENCE-BASED CLAIM | REFERENCE |
|---|---|---|
| 3.1 | Patient satisfaction surveys provide critical feedback to the MIP providers. | Khrystolubova et al. AJMC. 2022; 28(6 Spec No.): SP405-SP406. |

# PATIENT EDUCATION: SUPPORTIVE EVIDENCE

## 1. A multidisciplinary approach to patient education is a critical step in the MIP dispensing process.

| CLAIM # | KEY EVIDENCE-BASED CLAIM | REFERENCE |
|---|---|---|
| 1.1 | A comprehensive and multifaceted approach to education is essential in helping patients better understand how to take and manage their oral oncolytic agents. | Lin M, et al. J Oncol Pharm Pract. 2021; 27:1409–1421. |
| 1.2 | In an AUA and NCODA survey of MIPs in urologic oncology care, 68% of respondents within an MIP gave printed patient education at the time of any new therapy initiation vs 35% not affiliated with a MIP (using a mail-order pharmacy) and 91% educated patients on oral oncolytics prior to initiation (vs. 49%). | https://www.auanet.org/documents/practices-resources/quality/quality-improvement-library/Integration-in-Action-Medically-Integrated-Dispensing.pdf. |

## 2. Patient education enhances understanding of and adherence to oral oncolytics.

| CLAIM # | KEY EVIDENCE-BASED CLAIM | REFERENCE |
|---|---|---|
| 2.1 | A multi-institution study of patients with chronic myelogenous leukemia found that an initial education session and follow-up as needed related to adverse effects, drug interactions and adherence significantly increased MPR. | Lam MS, et al. J Oncol Pharm Pract. 2016; 22:741-748. |
| 2.2 | In a multi-institution case-control study that provided an initial education session with a pharmacist and ongoing counseling, daily adherence was significantly improved. | Simons S, et al. Support Care Cancer. 2011; 19:1009-1018. |
| 2.3 | In a case-control study, pharmacist education regarding adverse events and ongoing adherence counseling resulted in increased detection of drug-related errors and adherence (MPR > 90%). | Ribed A, et al. Int J Clin Pharm. 2016;38:280-288. |
| 2.4 | In pilot study of integrated multidisciplinary follow-up with supplemental informational tools for patients on oral oncolytics, 100% of patients (n=80) reported adequate understanding of their medication. | Lin M, et al. J Oncol Pharm Pract. 2021;27(6):1409-1421. |
| 2.5 | A comparative study assessing the effect of an app (vs traditional follow-up) on drug safety, adherence and quality of life in patients receiving oral oncolytics demonstrated significant improvements in adherence to treatment (p=0.02), QoL (p<0.001), and drug safety (p=0.01) in patients who used the app. | Collado-Borrell R, et al. MIR mHealth and uHealth 2020;8(10):e20480. |

## 3. Patient education improves safety and toxicity of oral oncolytics.

| CLAIM # | KEY EVIDENCE-BASED CLAIM | REFERENCE |
|---|---|---|
| 3.1 | Patient education and phone calls by nurses using toxicity algorithms within the first week of treatment and ongoing thereafter reduced toxic effects, improved quality of life and reduced inpatient hospitalization. | Molassiotis A, et al. J Clin Oncol. 2009; 27:6191-6198. |
| 3.2 | Results of a prospective cohort study demonstrated the benefit of a clinical pharmacist education program on safety of ibrutinib. Patients in the intervention group had fewer grade 3 or higher adverse events than patients in the usual care group (8% vs 15%). | Zerbit J, et al. Ann Hematol. 2020; 99:1615-1625. |
| 3.3 | Results of a retrospective study demonstrated positive benefits of a multidisciplinary consultation program on safety of oral oncolytics. Patients in the consultation program (vs control group) had fewer adverse events in general (41 vs 109, p=0.048 and fewer digestive AEs (6 vs 29, p=0.007) | Feral A, et al. J Oncol Pharm Pract. 2022; 28(7):1543-1551. |
| 3.4 | In a randomized, controlled trial of nurse-led telephone follow-up vs standard of care in 183 patients receiving oral oncolytics, grade 3 adverse events were significantly lower (p=0.03) in patients who received adverse event advice in follow-up calls. | Bouleftour W, et al. Support Care Cancer. 2021; 29:4257-4267. |
| 3.5 | A phase 3 trial evaluating the addition of a nurse navigator-led follow-up and a mobile app to usual care in 559 patients treated with oral oncolytics demonstrated significant improvements in relative dose intensity (93% vs 89%, p=0.04) and grade ≥3 toxicities (28% vs 37%, p=0.02) with remote monitoring vs usual care alone. | Mir O, et al. Nature Medicine 2022;28(6):1224-31. |

# FINANCIAL: SUPPORTIVE EVIDENCE

## 1. Financial burden and high out-of-pocket expenses for prescriptions are functional barriers to care.

| CLAIM # | KEY EVIDENCE-BASED CLAIM | REFERENCE |
|---|---|---|
| 1.1 | Cost, prior authorizations and financial assistance are barriers to oral oncolytic initiation. | Gabriel MH, et al. J Manag Care Spec Pharm. 2022 Nov; 28(11): 10.18553/jmcp.2022.28.11.1244. |
| 1.1.1 | In an AUA and NCODA survey of MIPs in urologic oncology care, 73% of respondents associated with MIPs reported challenges with prior authorization and benefit verification, 55% reported challenges with payer constraints on ability to fill in-house, and 49% reported challenges with PBMs directing patient care to their preferred pharmacies. | https://www.auanet.org/documents/practices-resources/quality/quality-improvement-library/Integration-in-Action-Medically-Integrated-Dispensing.pdf. |
| 1.2 | Financial assistance programs, including copay cards, foundation grants and manufacturer patient assistance programs, can decrease financial burden. | Hung A, et al. J Manag Care Spec Pharm. 2021;27:10.18553/jmcp.2021.27.7.924. |

## 2. MIPs seamlessly coordinate financial assistance for patients.

| CLAIM # | KEY EVIDENCE-BASED CLAIM | REFERENCE |
|---|---|---|
| 2.1 | Pharmacists and pharmacy technicians within an MIP can perform benefits investigations, assess patient out-of-pocket responsibility and enroll patients in assistance programs to alleviate the high cost burden of oral oncolytic agents and prevent therapy abandonment. | Farano JL, et al. J Manag Care Spec Pharm. 2019; 25:10.18553/jmcp.2019.25.7.765. |
| 2.1.1 | In one study, 18.6% of patients filling their oral oncolytics within an MIP received a patient assistance program. One in three patients was enrolled in a financial assistance program, with cost savings ranging from $5 to over $13,000 per prescription claim. | Farano JL, et al. J Manag Care Spec Pharm. 2019; 25:10.18553/jmcp.2019.25.7.765. |
| 2.2 | MIPs offer patients and insurance providers a single point of contact, reducing the paperwork and correspondence among multiple parties. | Wyatt H, et al. J Hematol Oncol Pharm. 2020;10(4):198-205. |
| 2.3 | Employers and insurers should consider investment in MIPs for clinical management of cancer patients to improve outcomes and reduce costs. | Tschida SJ, et al. Pharm Benefits. 2012;4(4):165-74. |
| 2.4 | An ACCC membership survey on management of oral oncolytics revealed use of mail-order specialty pharmacies led to delays for reasons including denials from health insurance (58%) or lack of documented prior authorization (35%). | https://www.accc-cancer.org/docs/projects/pdf/implementing-oral-oncolytics-final.pdf?sfvrsn=274a112_0. |

# WANT MORE INFORMATION?

TO VIEW THE FULL CORE CLAIMS ARTICLE, SCAN THE QR CODE:

TO LEARN MORE ABOUT NCODA'S COMMITMENT TO MEDICALLY INTEGRATED PHARMACY, SCAN THE QR CODE:

## FINANCIAL: SUPPORTIVE EVIDENCE (CONTINUED)

### 3. MIPs lead to cost savings for patients.

| CLAIM # | KEY EVIDENCE-BASED CLAIM | REFERENCE |
|---|---|---|
| 3.1 | MIPs allow for increased pharmacy oversight, which leads to increased cost avoidance and reduced waste for patients. | Darling JO, et al. JCO Oncol Pract. 2022 Jul; 18(7): e1225–e1230. |
| 3.1.1 | The net cost avoidance of oral oncolytics from ~50 MIPs nationwide was $6,510,971.28 vs $546,082.45 for external mail-order pharmacies, | Darling JO, et al. JCO Oncol Pract. 2022 Jul; 18(7): e1225–e1230. |
| 3.2 | Pharmacist intervention within an MIP leads to substantial cost savings. | |
| 3.2.1 | An estimated annualized cost avoidance associated with one MIP would be greater than $3.5 million in hematologic/oncologic medications. | Langkford C, et al. J Manag Care Spec Pharm. 2021 Mar; 27(3): 10.18553/jmcp.2021.27.3.379. |
| 3.2.2 | In one study, MIP pharmacist clinical review and postponement of refill renewal requests until after a scheduled follow-up resulted in an estimated cost avoidance of up to $750,000 (AWP-20%) in 12 months. | Looney B, et al. J Manag Care Spec Pharm. 2024;30:465-474. |
| 3.3 | In-office dispensing of oral chemotherapy provides significant cost savings to third-party payers compared to mail-order pharmacy dispensing as evidenced by a net cost avoidance annually of $1,730,416 in one study. | Howard A, et al. J Oncol Pharm Pract. 2018;25(7): https://doi.org/10.1177/1078155218799853. |
| 3.4 | A real-world study of MIP (vs specialty pharmacies) demonstrated the potential of MIP to save ~$1.1 million from wasted medications through dose change. | Jackson SK, et al. Presented at Academy of Managed Care Pharmacy (AMCP) Annual Meeting, March 21–24, 2023, San Antonio, Texas. |
| 3.5 | MIP dispensing of oral oncolytics was associated with a $5,672 reduction per patient in medical spending vs non-MIP. | Urick B, et al. J Clin Oncol. 2024;42(16 suppl): e23098. |
| 3.6 | Point-of-sale prices paid for oral oncolytics were 1.12% lower at MIPs vs. other pharmacies. | Kakani P, et al. JAMA Network Open.2024;7(2):e2356592. |

# COST AVOIDANCE & WASTE: SUPPORTIVE EVIDENCE

## 1. MIPs provide waste mitigation strategies that lead to cost savings and cost avoidance.

| CLAIM # | KEY EVIDENCE-BASED CLAIM | REFERENCE |
|---|---|---|
| 1.1 | MIPs allow for increased pharmacy oversight, which leads to increased cost avoidance and reduced waste for third-party payers. | Darling JO, et al. JCO Oncol Pract. 2022 Jul; 18(7): e1225–e1230. |
| 1.1.1 | Using NCODA's Cost Avoidance & Waste Tracker tool, net cost avoidance of oral oncolytics from ~50 MIPs nationwide was determined to be $6,510,971.28 vs $546,082.45 for external mail-order pharmacies. | Darling JO, et al. JCO Oncol Pract. 2022 Jul; 18(7): e1225–e1230. |
| 1.2 | Drug repository programs that collect drug donations and redispense medications are associated with decreased healthcare costs and cost savings to poor, uninsured and underinsured patients. | Stanz L, et al. JCO Oncol Pract. 2021; 17:e426-e432. |
| 1.3 | Real-world pharmacy claims data demonstrate that MID (vs specialty pharmacy dispensing) was associated with significantly lower waste (29% vs 50%) and expense (specialty pharmacy associated with additional dose change cost of $1,796). | Leach JW, et al. J Clin Oncol. 2022;40(suppl 16):e18645. |
| 1.4 | A 68% waste reduction and net annual cost savings was seen in an interventional study by redispensing unused medications originally provided in sealed packaging and returned to the pharmacy if unused. | Smale EM, et al. JAMA Oncol. 2024; 10:87. |
| 1.5 | Individualized dispensing of oral oncolytics reduced unused unit doses by 34%, leading to cost savings and waste reduction. | Smale EM, et al. JCO Oncol Pract. 2023; 19:e618-e629. |
| 1.6 | Payers for patients who received their oral oncolytics via a split fill program had significant medication savings per covered month ($2,147.60 at one month) and less waste. | Staskon FC, et al. JCO Oncol Pract. 2019; 15:e856-e862. |

## 2. Interventions by the MIP team lead to cost savings and cost avoidance.

| CLAIM # | KEY EVIDENCE-BASED CLAIM | REFERENCE |
|---|---|---|
| 2.1 | MIP pharmacist clinical review and postponement of refill renewal requests until after a scheduled follow-up led to an estimated cost avoidance of up to $750,000 (average wholesale price minus 20%) in 12 months. | Looney B, et al. J Manag Care Spec Pharm. 2024;30(5):465-474. |
| 2.2 | Pharmacist interventions in an oral chemotherapy clinic led to total cost savings and cost avoidance of $2,245,856 in a nine-month period. | Nguyen A. J Clin Oncol. 2022; 40 (16 suppl): e18839. |
| 2.3 | Clinical pharmacist interventions within an MIP were associated with significant cost avoidance of $1,508,131 during a five-month study period. | Lankford C, et al. J Manag Care Spec Pharm. 2021;27:379-384. |
| 2.4 | Pharmacist interventions in an outpatient cancer center were associated with a net benefit of $753,150 per year. | Trinidad DM, Patel PR. J Adv Pract Oncol. 2022; 13:673-682. |
| 2.5 | Interventions made by a pharmacist for patients on an oral oncolytic at a community oncology center were associated with an average cost savings of $12,058 per intervention. | Rees M, et al. AMCP 2024 Annual Meeting. |
| 2.6 | Oncology nurse interventions before a refill of an oral oncolytic at an MIP were associated with $1,994,629.88 saved in waste and cost avoidance in 2023. | Weinberg T. J Clin Oncol. 2024;42(suppl 16): e23207. |

# ACROSS THE ONCOLOGY LANDSCAPE, ADVOCACY PLAYS A CENTRAL ROLE IN NCODA'S MISSION

As a clinically grounded voice in national oncology policy discussions, NCODA works to ensure that regulations and coverage decisions reflect the realities of cancer care rather than administrative convenience. Through formal perspectives, policy statements, engagement with payers and policymakers, and collaboration with manufacturers and patient advocates, NCODA elevates medically integrated oncology practices and the patients they serve.

Cancer care is complex, highly individualized and increasingly dependent on timely access to targeted and biomarker-driven therapies. Administrative barriers that delay appropriate treatment can carry serious clinical consequences. NCODA's advocacy prioritizes timely access to evidence-based therapies, preservation of clinical autonomy and advancement of value-based care models focused on measurable outcomes rather than short-term cost shifting.

At the center of every advocacy effort is a clear standard: the right therapy, at the right time, for the right patient — selected by the physician. Policy should support that standard, not obstruct it.

## MOVING FROM PRINCIPLE TO ACTION

NCODA's advocacy spans the oncology spectrum — from utilization management and reimbursement reform to access pathways for emerging therapies, medically integrated dispensing, quality reporting and value-based payment design. The organization translates frontline oncology experience into policy dialogue, sharing real-world data and operational insight to ensure regulatory and payer frameworks align with clinical complexity.

**NCODA's advocacy prioritizes timely access to evidence-based therapies, preservation of clinical autonomy and advancement of value-based care models focused on measurable outcomes rather than short-term cost shifting.**

Whether addressing prior authorization, coverage criteria, specialty pharmacy restrictions or care model innovation, NCODA promotes safeguards that protect timely access to evidence-based treatment while supporting responsible stewardship of healthcare resources. Policies developed for other therapeutic areas cannot be applied to oncology without thoughtful adaptation. Transparent, clinically grounded criteria, practical exception processes and meaningful collaboration with oncology stakeholders are essential components of sound policy.

A recent example can be found in NCODA's Perspective on step therapy, which examines the growing use of step edits in oncology and outlines oncology-specific safeguards. **(See the Step Therapy Perspective on the next page.)**

NCODA also advances policy frameworks that recognize medically integrated oncology practices as partners in value-based care. By embedding pharmacy services within the clinical setting and aligning quality measurement with patient outcomes, integrated models demonstrate how access, coordination and accountability can coexist. Through its advocacy, NCODA reinforces that sustainable oncology policy must be built around patient outcomes and clinical expertise.

## ELEVATING THE ONCOLOGY PRACTICE VOICE

Through our Positive Quality Interventions (PQIs), educational programming and policy perspectives, NCODA equips oncology practices with structured tools to document outcomes, demonstrate quality and engage in meaningful policy dialogue. Advocacy is informed by the day-to-day experience of clinicians, pharmacists, nurses and administrators working directly with patients.

NCODA collaborates across the oncology ecosystem — partnering with patient advocates, health plans, manufacturers and professional organizations to ensure evolving policy frameworks reflect clinical nuance. As regulatory complexity increases, advocacy helps ensure innovation in cancer treatment is matched by thoughtful, clinically informed policy. When policy is shaped by those closest to care delivery, the system works better for patients.

NCODA's advocacy reinforces a simple principle: cancer policy must be built around patient outcomes and clinical expertise. By grounding its positions in real-world data and the experience of medically integrated oncology practices, NCODA works to ensure administrative processes support — rather than hinder — high-quality cancer care.

# PERSPECTIVE: PROTECTING PATIENT-CENTERED ONCOLOGY CARE FROM HARMFUL STEP EDITS

## The right therapy, the right time, the right patient — selected by the physician

NCODA's mission is to advance patient-centered, medically integrated oncology care. At our core is a simple principle: people with cancer deserve timely access to the most appropriate, evidence-based therapies, guided by the clinical expertise of their oncology care team and informed by each patient's unique disease characteristics and personal circumstances.

NCODA strongly opposes step therapy policies in oncology, as they delay appropriate treatment, increase the risk of avoidable complications and drug waste, and undermine the cost-avoidance benefits achieved through medically integrated oncology care. While we recognize the need for responsible healthcare spending and collaboration among payers, oncologists, manufacturers, and policymakers, cancer care requires flexibility, nuance, and trust in clinical expertise.

Patient-centered care is not achieved through rigid algorithms, but through thoughtful collaboration and respect for

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### WHAT NCODA CALLS FOR ON THE STEP THERAPY ISSUE

- Meaningful oncology-specific exemptions from step therapy requirements.
- Transparent, clinically grounded criteria when utilization management is applied.
- Timely, streamlined exception and appeals processes that prioritize patient safety (including rapid review pathways when delay risks harm).
- Collaboration with oncology clinicians and patient advocates in policy design.
- Recognition of medically integrated oncology practices as partners in value-based care.

## ADVOCACY

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the complexity of cancer treatment.

In 2025, NCODA published a Perspective addressing growing concerns around step therapy and its implications for oncology care. Since that time, the use of step edits has continued to expand across payers and care settings. While step therapy is often positioned as a cost-management tool by insurers, its routine application in oncology raises serious concerns about safety, equity, clinical autonomy, and outcomes.

NCODA recognizes the complexity of healthcare economics and the importance of stewardship of limited resources. However, policies that delay or restrict access to the right cancer therapy at the right time undermine both patient outcomes and the long-term value of care.

Our goal is to elevate the conversation around step therapy in oncology by increasing visibility to its real-world impact and encouraging thoughtful, patient-centered policies grounded in clinical evidence, patient needs and shared accountability.

### THE UNIQUE NATURE OF ONCOLOGY CARE

Cancer care presents unique clinical and timing considerations that distinguish it from many other areas of medicine. Oncology treatment decisions are rarely interchangeable, rarely straightforward, and rarely forgiving of delay. Advances in precision medicine have transformed cancer treatment from a one-size-fits-all approach to one that is increasingly driven by tumor biology, biomarkers, genetic mutations, disease stage, prior treatment response and patient-specific factors.

In this context, step therapy, which requires patients to try and fail one or more insurer-preferred therapies before accessing the therapy selected by their oncologist, is particularly problematic. Unlike many chronic disease medications, cancer therapies are often not therapeutically equivalent substitutes. A "fail-first" or "intolerance" requirement can mean knowingly exposing patients to treatments that are less likely to work, and more likely to cause harm, or both.

**Patient-centered care is not achieved through rigid algorithms, but through thoughtful collaboration and respect for the complexity of cancer treatment.**

Timing matters in cancer. Delays in initiating the most appropriate therapy, and interruptions in treatment sequencing, can allow disease progression, reduce the likelihood of response, and narrow future treatment options. Even short interruptions or detours in care can have lifelong consequences.

### DISRUPTION OF CONTINUITY AND PERSONALIZED MEDICINE

One of the most significant harms of step edits in oncology is the disruption of continuity of care. Patients begin their cancer journey at a moment of profound vulnerability, relying on their care team for clarity, trust, and guidance. When a payer-mandated step edit overrides a carefully constructed treatment plan by a healthcare provider, that trust is strained.

Step therapy policies also ignore the reality of personalized medicine and undermine clinical judgment. Treatment decisions are complex, based on clinical trial data tied to specific patient populations. Step edits often apply blunt rules to nuanced clinical situations, forcing patients into standardized pathways that do not reflect their individual disease and can have serious consequences on health outcomes.

By treating patients as members of a generalized group rather than as individuals, step edits undermine the very progress oncology has made over the past two decades.

### RISK OF DISEASE PROGRESSION AND INCREASED TOXICITY

Requiring patients to try suboptimal therapies first is not a benign exercise. For many patients, progression during an ineffective line of therapy can mean loss of performance status, increased symptom burden and reduced eligibility for future treatments or clinical trials.

Step edits may force patients into older therapies or regimens with higher toxicity profiles. Increased adverse effects can lead to emergency department visits, hospitalizations, treatment interruptions, and diminished quality of life. These downstream consequences are not only harmful to patients — they also increase the total cost of care.

### EMOTIONAL AND PSYCHOLOGICAL IMPACT ON PATIENTS

A cancer diagnosis already carries immense emotional weight. Patients face fear, uncertainty, and loss of control. Being told that the treatment recommended by their oncologist is delayed or denied — not due to medical reasoning, but because of an administrative requirement — adds another layer of distress.

The message patients often hear is not "This is the best care for you," but rather "You must wait" or "you must try something else first." This uncertainty erodes confidence in the healthcare system and exacerbates anxiety at a time when emotional support is critical.

### ADMINISTRATIVE BURDEN AND CLINICIAN BURNOUT

Step therapy policies place a significant administrative burden on oncology practices. Prior authorizations, appeals, peer-to-peer reviews, and repeated documentation requirements divert time and resources away from direct patient care.

Over time, this burden contributes to staff burnout and practice strain. In some cases, the complexity and time required to appeal a step edit may discourage pursuit of the optimal therapy altogether — resulting in patients receiving treatments that neither the physician nor the patient believes are best.

This shift of decision-making authority away from oncologists undermines shared decision-making and

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## ADVOCACY

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devalues clinical expertise.

### QUESTIONING THE COST NARRATIVE

While step therapy is often justified as a cost-containment strategy, the financial reality in oncology is far more complex. Delays in accessing the most appropriate therapy can result in disease progression, additional lines of treatment, increased toxicity, and hospitalizations, all of which drive higher total costs of care.

Step edits can increase drug waste. When patients are required to initiate therapies that are unlikely to be effective, partially administered regimens, unused medications, and treatment changes due to progression or toxicity contribute to avoidable financial waste. These inefficiencies stand in contrast to the cost-avoidance benefits achieved through medically integrated oncology practices, where close coordination of care, real-time clinical oversight, and adherence help optimize therapy selection and minimize unnecessary utilization.

Short-term cost shifting should not be mistaken for sustainable, long-term value. True value in oncology is achieved by ensuring the right therapy is delivered at the right time, reducing avoidable complications, minimizing waste, and supporting sustainable, patient-centered care delivery.

**As step edit policies continue to evolve, NCODA will remain actively engaged in leading education and advocacy efforts that prioritize clinical integrity and patient outcomes.**

### ADVANCING A BETTER PATH FORWARD

As the oncology landscape continues to evolve, policies must evolve with it. Cancer care demands precision, timeliness, and trust in clinical expertise. Administrative mechanisms that delay or redirect evidence-based treatment decisions do not reflect the complexity of modern oncology or the shared goal of improving outcomes while stewarding resources responsibly.

Patients with cancer deserve more than administrative complexity. They deserve care that is timely, individualized, and grounded in clinical evidence. Step therapy, as currently applied in oncology, too often falls short of that standard.

NCODA remains committed to being a leading, constructive voice in this conversation. By shining a light on the real-world impact of step edits and advocating for policies aligned with patient needs, we can move toward a healthcare system that balances cost considerations with compassion, precision, and outcomes.

Delivering the right cancer therapy, at the right time, for the right patient, is not only good medicine, it is sound health policy.

As step edit policies continue to evolve, NCODA will remain actively engaged in leading education and advocacy efforts that prioritize clinical integrity and patient outcomes. Our commitment to addressing these challenges alongside our members and partners is ongoing.

Please reach out to **contact@ncoda.org** for further information or to discuss this important issue.

NCODA Resource Guide

# Clinical Resources

# PQIs: STANDARDIZING EXCELLENCE IN MEDICALLY INTEGRATED ONCOLOGY CARE

As oncology treatment continues to evolve at a rapid pace, maintaining consistency, safety and evidence-based best practices across multidisciplinary teams can be challenging.

New oral oncolytics, complex dosing strategies, toxicity profiles, biomarker-driven indications and sequencing considerations require coordinated, informed decision-making at every step. NCODA's Positive Quality Interventions (PQIs) were developed to help oncology professionals meet that challenge.

A PQI is a peer-reviewed, clinically grounded guidance framework focused on a specific therapy or clinical scenario. Each PQI distills available evidence, prescribing information and real-world expertise into practical, actionable standards that support optimal therapy selection, dosing, monitoring, toxicity management and patient education.

PQIs are designed for use by the entire medically integrated oncology team — physicians, pharmacists, nurses, advanced practitioners, administrators and care coordinators — reinforcing shared accountability and standardized excellence across disciplines.

Unlike traditional guidelines that may focus primarily on disease state management, PQIs emphasize safe, operational implementation. They provide clarity around dose modifications, supportive care strategies, monitoring parameters, drug-drug interactions, adherence considerations and workflow integration. Many PQIs are accompanied by practical tools that can be embedded into treatment pathways, EMR templates, and patient education processes, helping reduce variability and administrative burden while enhancing quality.

To see one of NCODA's latest PQIs — **HER2 Immunohistochemistry Testing in Metastatic Breast Cancer: Guiding Treatment Decisions and the Role of Sacituzumab Govitecan** — please turn the page.

## AVAILABLE PQIs

NCODA's PQI library continues to expand as new therapies and clinical insights emerge. Some of our more recent PQIs include:

- **Epcoritamab (Epkinly™)** — Relapsed/Refractory Diffuse Large B-Cell Lymphoma and Follicular Lymphoma
- **Ivosidenib (Tibsovo®)** — Management of IDH1 Mutant Acute Myeloid Leukemia
- **Encorafenib (Braftovi®) + Cetuximab (Erbitux®) + mFOLFOX6** — BRAF V600E-Positive Metastatic Colorectal Cancer
- **Elranatamab (Elrexfio®)** — Relapsed/Refractory Acute Myeloid Leukemia
- **Amivantamab (Rybrevant®) and Lazertinib (Lazcluze®)** — Prophylaxis and Management of Skin Toxicities: The COCOON Protocol
- **Revumenib (Revuforj®)** — Management of Acute Leukemia
- **Sutimlimab-jome (Enjaymo®)** — Management of Hemolysis in Cold Agglutinin Disease (CAD)
- **Datopotamab deruxtecan (Datroway®)** — Prophylaxis and Management of Adverse Events

For a full list of available NCODA PQI's, go to **www.ncoda.org/find-a-pqi/**.

Each PQI is developed through NCODA's collaborative model, leveraging the expertise of practicing oncology professionals who understand the operational and clinical realities of cancer care. This peer-to-peer development process ensures relevance, practicality and alignment with medically integrated oncology practice.

## WHY PQIS MATTER TO YOUR PRACTICE

For NCODA members, PQIs serve as quality anchors. They promote proactive toxicity management, encourage therapy adherence, reduce unnecessary dose interruptions and support value-based care initiatives. Standardizing evidence-based interventions across teams can also strengthen documentation, improve communication with payers and support performance improvement efforts.

For prospective members, PQIs represent a tangible example of NCODA's commitment to advancing patient-centered, medically integrated oncology care. They are not theoretical position statements — they are working tools designed for everyday use in clinical practice.

As oncology continues to grow more complex, the need for structured, practical quality frameworks becomes even more critical. PQIs help ensure that patients receive the right therapy, delivered safely and effectively, within a coordinated care model that prioritizes outcomes and accountability.

NCODA will continue expanding the PQI portfolio in response to emerging therapies and member-driven needs. For oncology professionals seeking to standardize excellence and elevate care delivery, PQIs offer a clear, actionable pathway forward.

Written By: Sydney Schultz, PharmD, BCOP
Institution: Mayo Clinic

# HER2 Immunohistochemistry Testing in Metastatic Breast Cancer: Guiding Treatment Decisions and the Role of Sacituzumab Govitecan

**Description:**
The purpose of this document is to discuss the clinical utility and implications of human epidermal growth factor receptor 2 (HER2) immunohistochemistry (IHC) testing in metastatic triple-negative breast cancer (mTNBC) and metastatic hormone receptor-positive HER2-negative (mHR+/HER2-) breast cancer. It also reviews current treatment approaches for these two subsets of metastatic breast cancer, with a focus on the role of sacituzumab govitecan (SG).

**Background:**

- HER2 is commonly overexpressed on the surface of breast cancer cells and HER2 testing should be performed on all new primary or newly metastatic breast cancers[1]
- HER2 testing occurs in a two-step process: first with IHC, then with in-situ hybridization (ISH) testing if IHC results are uncertain or equivocal (see table below)[1,2]

**Table 1. HER2 protein expression by IHC assay[1,2]**

| Score | Description | Interpretation |
|---|---|---|
| 0 | No membrane staining observed | HER2 negative/null |
| 0+ | Faint/barely perceptible incomplete staining in <10% of tumor cells | HER2 ultralow<br>Treat as HER2 negative |
| 1+ | Faint/barely perceptible incomplete membrane staining in >10% of tumor cells | HER2 low<br>Treat as HER2 negative |
| 2+ | Weak to moderate complete membrane staining in >10% of tumor cells<br><br>Or<br><br>Complete membrane staining that is intense but within ≤10% of tumor cells | HER2 equivocal → reflex to FISH testing<br><br>If ISH negative: HER2 low<br><br>If ISH positive: HER2 positive |
| 3+ | Intense, complete circumferential membrane staining in >10% of tumor cells | HER2 positive |

- HER2-negative and HER2-low (IHC 1+ or 2+/FISH negative) tumors may be considered for treatment with antibody drug conjugate (ADC) therapy, including SG, in the second line or beyond setting
- In the phase III ASCENT trial[4] (SG vs physician choice, single-agent chemotherapy in mTNBC patients)
    - SG improved PFS and OS in both HER2 IHC0 and HER2-Low patients
    - ORR was improved for SG vs chemotherapy in HER2 IHC0 and HER2-Low patients

**PQI Process:**

- Confirm HER2 and HR status
- Evaluate prior lines of therapy and performance status
- Determine appropriate treatment recommendations based on patient's biomarker results and treatment history

**Table 2. Guideline-Recommended Treatment for mTNBC[1]**

| Setting | Biomarker | Regimens |
|---|---|---|
| ***First Line*** | PD-L1 CPS ≥ 10 regardless of germline BRCA 1/2 mutation status | • Chemotherapy + Pembrolizumab (category 1, preferred)<br>• **Sacituzumab govitecan** + pembrolizumab **(preferred)** |
| | PD-L1 CPS < 10; no germline BRCA 1/2 mutation | • **Sacituzumab govitecan (category 1, preferred)**<br>• Datopotamab deruxtecan (other recommended)<br>• Systemic chemotherapy |
| ***Second Line*** | Germline BRCA 1/2 mutation | • PARP inhibitor (category 1, preferred) |
| | Any | • **Sacituzumab govitecan (category 1, preferred)**<br>• Systemic chemotherapy or targeted agents |
| | No germline BRCA 1/2 mutation HER2 IHC 1+ or 2+/FISH- | • Fam-trastuzumab deruxtecan *(other recommended regimen)* |

**Table 3. Guideline-Recommended Treatment for endocrine refractory mHR+/HER2-negative disease[1]**

| Setting | Biomarker | Regimens |
|---|---|---|
| ***Second Line*** | HER2 IHC 1+ or 2+/ISH negative | • Fam-trastuzumab deruxtecan (category 1, preferred) |
| | HER2 IHC 0+ | • Fam-trastuzumab deruxtecan (other recommended regimen) |
| | Not a candidate for fam-trastuzumab deruxtecan | • **Sacituzumab govitecan (category 1, preferred)**<br>• Systemic chemotherapy<br>• Targeted therapy<br>• For HER2 IHC 0, 1+, or 2+/FISH negative: Datopotamab deruxtecan *(other recommended regimen)* |

If proceeding with SG[3]:

- SG is a trophoblast cell-surface antigen 2 (TROP2) directed ADC linked to a topoisomerase I inhibitor chemotherapy payload
- TROP2 does not require biomarker testing; it is found in high amounts of the surface of breast cancer cells
- Administer SG 10 mg/kg IV on Days 1 and 8 of a 21-day cycle
- Boxed warnings for diarrhea and neutropenia
- Patients with UGT1A1*28 genotype and reduced UGT1A1 activity and are at increased risk for toxicity
- High emetic risk: provide prophylactic antiemetics
- Risk of febrile neutropenia: provide primary G-CSF prophylaxis if patient has additional risk factors (prior chemotherapy, age > 65, renal dysfunction, etc)

**Patient-Centered Activities:**

- Discuss the importance and implications of HER2 testing, including how results influence treatment selection
- Review the NCODA PQI document, *Sacituzumab govitecan: Prophylaxis and Management of Adverse Events*, prior to providing patient education
- Provide chemotherapy patient education sheet for sacituzumab govitecan
- Reinforce importance of early symptom reporting (e.g., diarrhea, nausea/vomiting, fever, fatigue)

**References:**


1. NCCN Clinical Practice Guidelines in Oncology (NCCN Guidelines®) for Breast Cancer. V.4.2025.
2. Wolff AC, Somerfield MR, Dowsett M, et al. Human Epidermal Growth Factor Receptor 2 Testing in Breast Cancer: ASCO-College of American Pathologists Guideline Update. J Clin Oncol. 2023 Aug 1;41(22):3867-3872. doi: 10.1200/JCO.22.02864.
3. Trodelvy® (sacituzumab govitecan) [prescribing information]. Foster City, CA: Gilead Sciences Inc; March 2025.
4. Bardia A, Rugo HS, Tolaney SM, et al. Final Results From the Randomized Phase III ASCENT Clinical Trial in Metastatic Triple-Negative Breast Cancer and Association of Outcomes by Human Epidermal Growth Factor Receptor 2 and Trophoblast Cell Surface Antigen 2 Expression. J Clin Oncol. 2024 May 20;42(15):1738-1744. doi: 10.1200/JCO.23.01409.

# PQI IN ACTION

Positive Quality Intervention

NCODA

## Zolbetuximab (Vyloy®) for Gastroesophageal Cancers

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To view all PQI in Action articles, visit: www.ncoda.org/pqi-in-action

# POSITIVE QUALITY INTERVENTIONS IN ACTION: TRANSLATING STANDARDS INTO PRACTICE

Positive Quality Interventions (PQIs) are concise, peer-reviewed clinical guidance tools that define quality standards and effective practices around specific aspects of cancer care.

By equipping multidisciplinary oncology teams with evidence-based recommendations, PQIs support safe and consistent management of patients receiving oral or IV oncolytic therapies.

Their practical companions — PQIs in Action (PQIiA) — illustrate how those standards are implemented in real-world oncology practices.

While PQIs establish the clinical framework, PQIiAs bring those standards to life through expert insight, workflow adaptation and multidisciplinary collaboration. Together, they form a dynamic quality resource grounded in both evidence and experience.

## FROM GUIDANCE TO IMPLEMENTATION

PQIiAs are developed by oncology professionals actively engaged in patient care. Pharmacists, physicians, advanced practice providers, nurses and administrators contribute frontline expertise, offering examples of how PQI recommendations are operationalized within medically integrated practices.

To read the full **PQI In Action on DAROLUTAMIDE (NUBEQA®)**, scan the QR code above.

Each PQIiA reflects not only clinical knowledge but also the practical realities of workflow design, patient education, therapy monitoring and care coordination.

Content is peer-reviewed and shaped through collaboration with NCODA member experts and review committees to ensure clinical accuracy, applicability and consistency. Contributions often incorporate perspectives from multiple organizations and practice settings, reinforcing the multidisciplinary nature of oncology care.

More than a procedural summary, a PQIiA provides context. It addresses common barriers to implementation, highlights lessons learned and shares adaptable strategies that other practices can replicate. As the library continues to expand, more than several dozen PQIiAs have been produced to date, with new topics added regularly as therapies and practice standards evolve.


This PQI In Action on Darolutamide (Nubeqa®) was produced in cooperation with the Fred Hutchinson Cancer Center, Utah Cancer Specialists, The Start Center Pharmacy, Texas Oncology and GW Medicine. This guide is one of the most recent PQI In Action documents available through NCODA. More examples from the 14-page PQIiA can be found in the following pages.

## RECENT PQIs IN ACTION

Below are a few of the more recent PQIiAs, highlighting current clinical priorities and emerging therapies:

▲ **Darolutamide (Nubeqa®)** — See above image and those in the following pages.

▲ **Enfortumab Vedotin-ejfv (Padcev®) + Pembrolizumab (Keytruda®)** — Management for Advanced or Metastatic Urothelial Carcinoma — Explores multidisciplinary coordination, patient selection, adverse event monitoring and collaborative process improvements that

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# PQI IN ACTION

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teams implemented based on the PQI's framework.

▲ **Nirogacestat (Ogsiveo™)** — Management in Adults with Progressive Desmoid Tumors — Demonstrates how teams use quality standards to integrate this newer targeted therapy into practice, including patient monitoring and documentation strategies.

▲ **Siltuximab (Sylvant®)** — PQIiA for Idiopathic Multicentric Castleman Disease — Highlights real-world application of treatment management principles, toxicity monitoring and multidisciplinary coordination across comprehensive oncology teams.

▲ **Pacritinib (Vonjo®)** — Cytopenic Myelofibrosis Implementation — Describes how medically integrated teams operationalize symptom prioritization, therapy monitoring and collaborative follow-up care.

▲ **Proactive Symptom Management in Myelofibrosis** — Focuses on symptom assessment, practical toxicity mitigation strategies and team roles in ongoing support.

▲ **Medically Integrated Dispensing of Regorafenib (Stivarga®)** — Metastatic Colorectal Cancer — Case example showing how a PQI helps standardize clinical pharmacy integration, dosing workflows and multidisciplinary communication at large oncology organizations.

▲ **Ixazomib (Ninlaro®)** — Multiple Myeloma PQIiA — Offers insight on how practices implement key management steps from the underlying PQI, including patient selection, dosing considerations and coordination of monitoring.

▲ **Zanubrutinib (Brukhinsa®)**— Mantle Cell Lymphoma Patient Selection and Management — Illustrates how teams operationalize clinical criteria, patient education and monitoring pathways embedded in the PQI.

Each PQIiA reinforces a central theme: quality oncology care depends not only on selecting the appropriate therapy but also on building reliable systems that support patients throughout treatment.

## STRENGTHENING THE MULTIDISCIPLINARY MODEL

PQIiAs consistently demonstrate the value of medically integrated oncology practices. By embedding pharmacy services within the clinical setting and aligning quality standards with patient outcomes, these models strengthen communication, reduce delays and enhance adherence.

Across topics — from biomarker testing to toxicity management — PQIiAs reflect the daily coordination required among prescribers, pharmacists, nurses and administrative teams. They illustrate how quality standards can be woven into documentation practices, prior authorization workflows,

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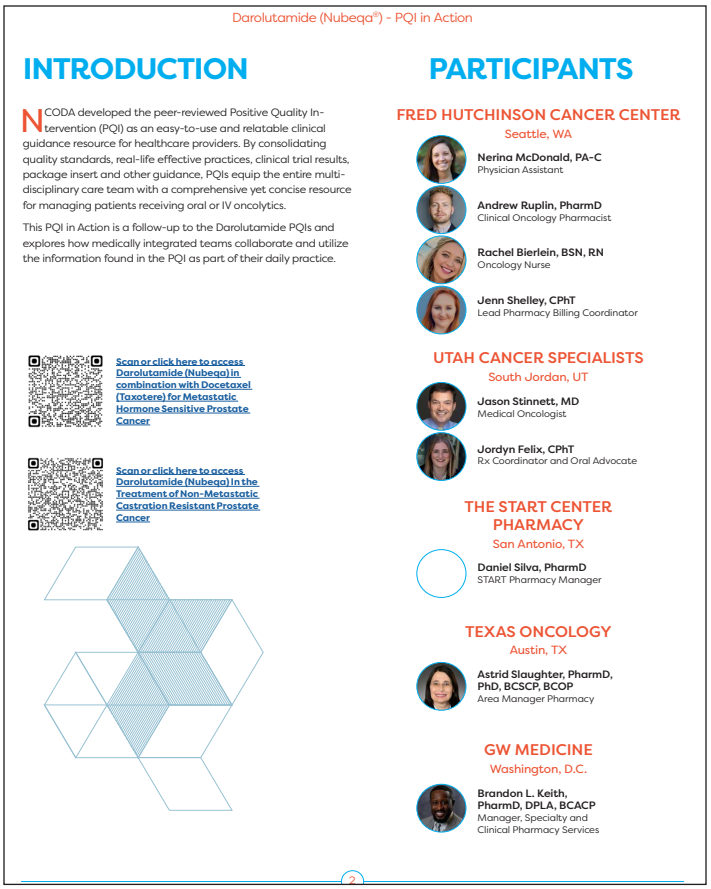

Darolutamide (Nubeqa®) - PQI in Action

## INTRODUCTION

NCODA developed the peer-reviewed Positive Quality Intervention (PQI) as an easy-to-use and relatable clinical guidance resource for healthcare providers. By consolidating quality standards, real-life effective practices, clinical trial results, package insert and other guidance, PQIs equip the entire multidisciplinary care team with a comprehensive yet concise resource for managing patients receiving oral or IV oncolytics.

This PQI in Action is a follow-up to the Darolutamide PQIs and explores how medically integrated teams collaborate and utilize the information found in the PQI as part of their daily practice.

Scan or click here to access Darolutamide (Nubeqa) in combination with Docetaxel (Taxotere) for Metastatic Hormone Sensitive Prostate Cancer

Scan or click here to access Darolutamide (Nubeqa) in the Treatment of Non-Metastatic Castration Resistant Prostate Cancer

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## CLINICAL BACKGROUND: DAROLUTAMIDE (NUBEQA®)

Prostate cancer leads as the most common cancer and the second leading cause of cancer death in men in the United States.[1] In addition, marked racial and ethnic disparities persist in prostate cancer incidence and outcomes. Black men have the highest incidence rate of prostate cancer (191.5 per 100,000), which is 67% higher than White men and nearly double that of American Indian/Alaska Native and Hispanic men. They are also diagnosed at a younger median age and have higher incidence across every age group. The causes of these disparities are multifactorial and are thought to include a complex interplay of genetic, environmental, and social determinants of health.[1]

Given the significant disease burden and the importance of optimizing outcomes across diverse patient populations, effective management strategies for prostate cancer remain a key clinical priority. Darolutamide, an androgen receptor inhibitor, offers an important therapeutic option for patients with non-metastatic and metastatic castration-resistant prostate cancer, as well as metastatic hormone-sensitive prostate cancer.

Darolutamide is indicated for the treatment of adult patients with[2]:

- non-metastatic castration-resistant prostate cancer (nmCRPC)
- metastatic castration-sensitive prostate cancer (mCSPC). *(approved in June 2025)*
- metastatic castration-sensitive prostate cancer (mCSPC) in combination with docetaxel

In clinical trials, the most common adverse reactions associated with darolutamide varied by indication. In patients with nmCRPC and mCSPC, the most frequent adverse reactions (greater than 10% and at least 2% more common than with placebo), including laboratory test abnormalities, were increased aspartate aminotransferase (AST), decreased neutrophil count, increased bilirubin, fatigue, and increased alanine aminotransferase (ALT). In patients with mCSPC receiving darolutamide in combination with docetaxel, the most common adverse reactions (10% or more and at least 2% greater than with placebo) were constipation, rash, decreased appetite, hemorrhage, increased weight, and hypertension.

The most frequent laboratory abnormalities (30% or more) included anemia, hyperglycemia, decreased lymphocyte and neutrophil counts, increased AST and ALT, and hypocalcemia.[2] The recommended darolutamide dose is 600 mg (two 300 mg tablets) taken orally, twice daily, with food.[2]

## HCP INSIGHTS: PATIENT SELECTION, ACCESS CONSIDERATIONS, AND THE IMPACT OF THE EXPANDED DAROLUTAMIDE INDICATION

Clinicians emphasized that patient selection for darolutamide is guided primarily by indication, comorbidities, drug interactions, and the overall safety profile of the medication. Jason Stinnett, MD, medical oncologist at Utah Cancer Specialists, underscored that prescribing remains aligned with approved indications but noted that payer formularies still shape treatment choices. "Insurance may still dictate a preferred formulary product per their own pharmacy benefit manager," he explained. Dr. Stinnett added that darolutamide can offer advantages for patients with diabetes because "abiraterone requires concomitant glucocorticoid use," which may complicate glycemic control.

Advanced practice providers described similar considerations. Nerina McDonald, PA-C, shared that their team at Fred Hutch evaluates a patient's comorbidities, performance status, and potential drug interactions when determining whether darolutamide is appropriate. "We rely a lot on concomitant medical conditions and how fit patients are," she said. Because darolutamide is generally well tolerated, the team "has not run into a lot of issues," although interactions with statins are monitored closely and are typically "easy to adjust."

Positive Quality Intervention in Action

# PQI IN ACTION

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patient education materials and follow-up protocols.

Importantly, PQIiAs also serve as advocacy tools. By documenting how evidence-based care is delivered in real-world oncology settings, they provide policymakers, payers and stakeholders with insight into the operational realities of cancer care. This transparency reinforces the need for policies that support timely access, clinical autonomy and patient-centered outcomes.

## A LIVING QUALITY LIBRARY

As oncology care continues to evolve — with new therapies, complex monitoring requirements and emerging value-based models — the PQI and PQIiA library grows alongside it. Each addition represents collaboration among experts committed to advancing consistent, high-quality care across diverse practice settings.

Together, PQIs and PQIiAs translate standards into action. They empower oncology teams to reduce variability, improve coordination and maintain a focus on measurable patient outcomes. By grounding guidance in real-world experience, NCODA continues to build a practical, peer-driven quality framework that supports excellence across the oncology continuum.



## HCP Insights: Patient Selection, Access Considerations, and the Impact of the Expanded Darolutamide Indication - continued

### CLINICAL PERSPECTIVE ON THE EXPANDED INDICATION

The recent (June, 2025) expanded indication for darolutamide in mCSPC has been well received by clinicians and pharmacists who had already incorporated the agent into practice. Andrew Ruplin, PharmD, described the latest approval as confirmation of what many teams were already doing. "The pivotal trial revealed something we were not surprised about," he said. "An androgen receptor inhibitor would work quite well in the metastatic castrate-sensitive setting." He added that darolutamide's safety features, including a lower potential for interactions and lower blood-brain barrier penetration, have provided advantages for patients who experienced fatigue or neurocognitive side effects with other agents.

Dr. Stinnett highlighted new evidence supporting the expanded indication. He referenced the ARANOTE trial, a randomized phase III study showing that darolutamide plus androgen deprivation therapy (ADT) significantly improved radiographic progression free survival compared to ADT alone. "This was observed in both high volume and lower volume disease without a meaningful increase in side effects," he explained. In the treatment group, the median time to radiographic progression was not reached, compared to 25 months in the ADT-only group. Dr. Stinnett added, "It gives those of us who treat prostate cancer an additional option for our patients." He shared that he has used darolutamide in triplet therapy with excellent tolerance and long-standing benefit, and that the broadened approval gives an additional indication for patients.

Ruplin echoed that the expanded indication aligns with clinical practice patterns. The update helps ensure "affordable coverage" for patients, particularly those who were previously receiving darolutamide off-label due to drug interaction concerns with other agents. He explained that while the approval does not change management for patients who are already chemotherapy candidates, it "opened up additional opportunities" for patients who are not eligible for docetaxel.

McDonald added that as familiarity with the drug has increased, so has its use across a wider range of clinical presentations. "We are expanding the treatment and applying it to more patients," she said. Their team is now using darolutamide in mCSPC with docetaxel upfront, as well as in nmCRPC, reflecting the growing comfort and experience within the multidisciplinary team. Collectively, these insights highlight how clinicians across roles are incorporating darolutamide more broadly, balancing patient-level considerations with payer dynamics, and leveraging new evidence to support informed, individualized treatment decisions.

## THE VALUE OF THE MEDICALLY INTEGRATED PHARMACY AND THE ONCOLOGY CARE TEAM

The implementation of Medically Integrated Pharmacy (MIP) practices within oncology care has transformed how patients experience and manage complex treatment regimens. With a growing emphasis on collaborative, patient-centered care, MIP structures aim to streamline communication, enhance medication safety, and improve treatment adherence, resulting in improvements across clinical outcomes. A defining strength of MIP is its multidisciplinary nature, where physicians, pharmacists, nurses, advanced practice providers, financial advocates, and pharmacy technicians work together to provide coordinated and comprehensive support.

The importance of this model is reinforced in the ASCO/NCODA Patient-Centered Standards for Medically Integrated Oncology Practices, which outline best practices that advance safety, efficiency, and equity in cancer care. These standards highlight key elements such as integrated clinical and pharmacy communication, proac-



## The Value of the Medically Integrated Pharmacy and the Oncology Care Team - continued

tive toxicity management, consistent patient education processes, financial navigation, and ongoing quality improvement activities that center the needs and experiences of each patient. By embedding pharmacy services directly within the oncology clinic, teams can respond more efficiently to clinical changes, address barriers to medication access, and maintain continuity throughout the treatment journey.[3]

For patients receiving therapies like darolutamide, the MIP model supports timely initiation, close monitoring of laboratory parameters, management of treatment-related adverse effects, and adherence counseling. The collaborative structure ensures that every member of the care team contributes to a unified approach that enhances safety, improves quality of life, and supports optimal outcomes.

### TEAM INSIGHTS ON THE VALUE OF THE MEDICALLY INTEGRATED PHARMACY

Insights from care team members illustrate how the medically integrated pharmacy (MIP) model strengthens coordination, enhances safety, and improves the overall patient experience during darolutamide therapy.

Dr. Stinnett described the meaningful impact the MIP structure has on patient care within his practice. He shared that his team has "seen a notable improvement in compliance and general patient understanding of their treatment and disease process as a result of our integrated pharmacy." He emphasized the coordinated roles across the care team, noting the value of dedicated nurse managers who maintain regular communication with patients and relay concerns promptly. He also highlighted the pharmacy team's essential contributions, including securing financial assistance, ensuring timely refills, and screening for drug interactions in "an older population who often have polypharmacy concerns."

Brandon L. Keith, PharmD, DPLA, BCACP, Manager of Specialty and Clinical Pharmacy Services at GW Medicine, emphasized the importance of multidisciplinary teamwork in delivering well-rounded care. He noted, "It is important to have the perspectives of various team members. We all have different training and experience, and as pharmacists we are the medication experts." He also underscored the operational value of MIP structures, explaining that the specialty pharmacy team manages prior authorizations, billing, and patient assistance programs while maintaining direct communication with prescribers and patients. "All this communication can be tracked within the patient's EMR," he said, which supports efficiency and care continuity.

From the perspective of McDonald, close communication between pharmacy, nursing, and advanced practice providers is critical for maintaining patient safety. She shared that regular check-ins and collaborative adherence to safety guidelines ensure that patients are monitored proactively throughout their treatment course.

Jordyn Felix, CPhT a pharmacy technician at Utah Cancer Specialists, highlighted how the integrated approach enhances medication safety and reduces communication gaps. "The value of our team is definitely the comprehensive patient care," she said. "When we all work together, our model reduces communication gaps between the providers and the pharmacy while also improving medication safety for our patients."

> "When we all work together, our model reduces communication gaps between the providers and the pharmacy while also improving medication safety for our patients."
>
> Jordyn Felix, CPhT.



## TEAM ROLES IN MEDICALLY INTEGRATED PROSTATE CANCER CARE

The management of prostate cancer, including therapies such as darolutamide, relies heavily on the coordinated efforts of a medically integrated oncology team. Each member contributes unique expertise to ensure patients receive safe, timely, and comprehensive care. Through interviews with physicians, pharmacists, pharmacy technicians, nurses, and advanced practice providers, a consistent theme emerged: streamlined communication, shared responsibility, and integrated workflows lead to better patient experiences and improved treatment access. The following sections highlight the distinct and complementary roles within the medically integrated pharmacy model.

### PHYSICIAN AND ADVANCED PRACTICE PROVIDERS

Physicians and advanced practice providers (APPs) play a central role in directing treatment decisions, assessing patient readiness for therapy, and managing symptoms throughout the course of care. Their clinical oversight ensures that therapies such as darolutamide are used appropriately and safely within the broader treatment landscape of prostate cancer.

At Utah Cancer Specialists, Dr. Stinnett provides comprehensive hematology and oncology care, treating a broad mix of patients with both malignant and benign conditions. Prostate cancer represents one of the most common diagnoses in his practice, second only to breast cancer. In addition to his clinical responsibilities, he dedicates a portion of his time to administrative duties, but his primary focus remains direct patient care.

Advanced Practice Providers (APPs) support treatment decisions, symptom management, and ongoing assessment of patients receiving therapies such as darolutamide. McDonald cares primarily for patients with prostate cancer, urothelial carcinoma, and testicular cancer. She noted that her work involves close collaboration with pharmacy and nursing to ensure patients start therapy safely, remain adherent, and receive timely monitoring.

### PHARMACISTS

Pharmacists are the medication experts within the medically integrated pharmacy model and provide critical oversight for oral and IV anticancer treatments. Ruplin shared that he serves as "the medication expert for our entire medical oncology team in the GU clinic." His responsibilities include reviewing antineoplastic orders, evaluating supportive medications, managing comorbid conditions such as hypertension, and conducting in-depth patient education on oral prostate cancer therapies.

McDonald emphasized the team's reliance on pharmacists when patients begin therapies such as darolutamide. She shared that pharmacists "take a thorough look at their other medications and let us know if there are any red flags or things that should be addressed or adjusted." Keith oversees a team of pharmacists, pharmacy technicians, and pre-certification staff. His role includes maintaining accreditation, managing relationships with payers and manufacturers, overseeing operational performance, and ensuring coordination "from the beginning when treatment is initiated to dispensing, monitoring, follow-up, and refills."

At Texas Oncology, Astrid Slaughter, PharmD, PhD, BCSCP, BCOP ensures that every regimen aligns with guidelines and reviews both IV and oral therapies for safety and appropriateness. She noted that as nursing workload has increased, pharmacy is likely to take the lead in chemotherapy education because "we are geared toward patient education based on our training."

Daniel Silva, PharmD, from the START Center, emphasized operational leadership in the outpatient medically integrated pharmacy. His responsibilities include maintaining workflow efficiency, resolving process challenges, supporting technicians and pharmacists, and ensuring patients receive timely access to oral oncology therapies.

### NURSING

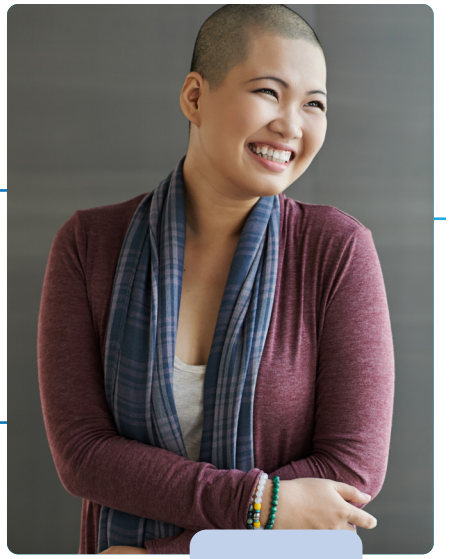
Nurses are essential to patient education, symptom monitoring, and day-to-day support throughout prostate cancer treatment. Rachel Bierlein, BSN, RN, a clinical nurse coordinator in the Genitourinary Oncology department at Fred Hutch, described nursing as "really patient education, symptom management, and supporting patients from their first visit and throughout their entire treatment journey."

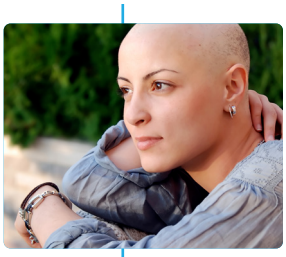
Because patients have direct access to the nursing line, they consistently reach the same team, which creates continuity and builds strong, trusting relationships. Nurses coordinate pre-education steps, follow-up plans, and ensure that patients are connected with financial services when cost concerns arise. Ruplin added that nurses play a critical educational role, noting that "I cannot do every single educational session, and my nurses help by doing the intravenous chemotherapy education."

McDonald emphasized that nurses are "pivotal to making sure that patients

Patient Education Sheets

# Cancer care, explained.





## *NEW* name, *SAME TRUSTED* guidance.

The Oral Chemotherapy Education (OCE) and Intravenous Cancer Treatment Education (IVE) sheets are now known as **Patient Education Sheets** (**PES**) - a clearer, more consistent name for the same expert-backed resources you rely on.

For years, clinicians and patients alike have turned to these sheets for straightforward, evidence-based guidance. Now, our redesigned platform offers faster, more intuitive access with enhanced search functionality to make finding information easier than ever.

This collaborative initiative draws upon the clinical expertise of ACCC, HOPA, NCODA, and ONS, ensuring each Patient Education Sheet remains accurate, comprehensive, and reflective of best practices in cancer care.

Explore the new platform and discover a modern experience built to support patients and providers alike.

www.PatientEducationSheets.com

Brought to you by: ACCC Association of Cancer Care Centers™ · HOPA Hematology/Oncology Pharmacy Association · NCODA Network for Collaborative Oncology Development & Advancement · ONS Oncology Nursing Society

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# PATIENT EDUCATION SHEETS: SUPPORTING PATIENTS THROUGH THEIR CANCER JOURNEY

Patient Education Sheets (PES) are evidence-based, patient-friendly guides created to help people with cancer and their caregivers understand treatment plans, what to expect, and how to manage side effects.

Each sheet explains how a therapy works, how it is administered, potential side effects and practical tips for self-care. They often include space for clinicians to add counseling notes or local contact information.

By distilling complex oncology treatment information into straightforward language at a fifth- to eighth-grade reading level, PES help reduce anxiety, strengthen understanding and support adherence throughout the cancer care journey.

For more information about **Patient Education Sheets**, scan the QR code above.

PES grew from NCODA's well-known Oral Chemotherapy Education (OCE) and Intravenous Cancer Treatment Education (IVE) platforms into a unified, searchable online library that now offers more than 300 downloadable sheets covering oral, injectable and infusion therapies, symptom management and general cancer care topics.

The resource is widely used by oncology teams and patients — accessed by healthcare providers more than 200,000 times each month — reflecting its value as a trusted educational tool.

Intended to supplement in-clinic counseling, PES can be downloaded and printed for distribution during patient visits. They reinforce verbal education with a reliable takeaway reference that patients and caregivers can revisit at home, improving communication and helping ensure patients leave appointments feeling empowered, informed and prepared to manage treatment.

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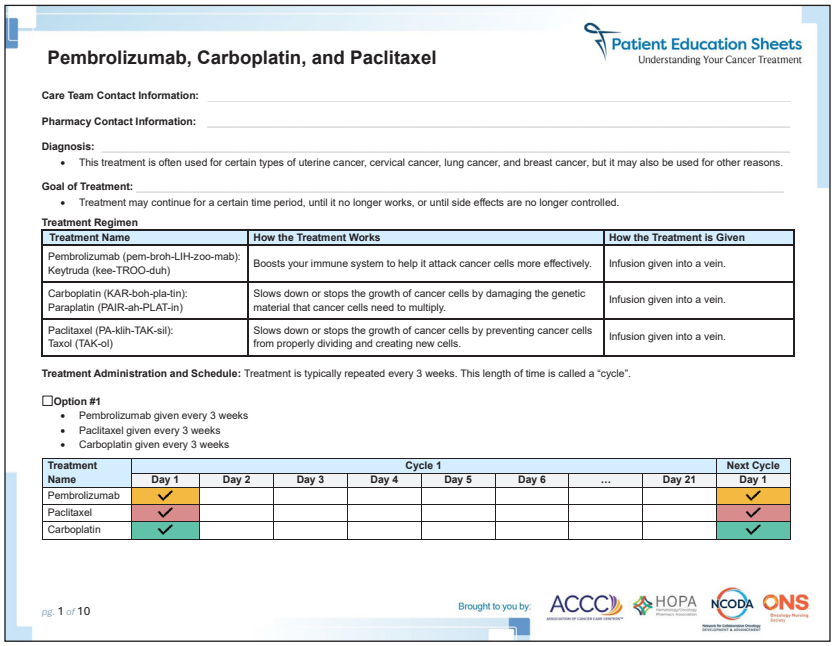


Patient Education Sheets
Understanding Your Cancer Treatment

**Pembrolizumab, Carboplatin, and Paclitaxel**

**Care Team Contact Information:** _____

**Pharmacy Contact Information:** _____

**Diagnosis:** _____

- This treatment is often used for certain types of uterine cancer, cervical cancer, lung cancer, and breast cancer, but it may also be used for other reasons.

**Goal of Treatment:** _____

- Treatment may continue for a certain time period, until it no longer works, or until side effects are no longer controlled.

**Treatment Regimen**

| Treatment Name | How the Treatment Works | How the Treatment is Given |
|---|---|---|
| Pembrolizumab (pem-broh-LIH-zoo-mab): Keytruda (kee-TROO-duh) | Boosts your immune system to help it attack cancer cells more effectively. | Infusion given into a vein. |
| Carboplatin (KAR-boh-pla-tin): Paraplatin (PAIR-ah-PLAT-in) | Slows down or stops the growth of cancer cells by damaging the genetic material that cancer cells need to multiply. | Infusion given into a vein. |
| Paclitaxel (PA-klih-TAK-sil): Taxol (TAK-ol) | Slows down or stops the growth of cancer cells by preventing cancer cells from properly dividing and creating new cells. | Infusion given into a vein. |

**Treatment Administration and Schedule:** Treatment is typically repeated every 3 weeks. This length of time is called a "cycle".

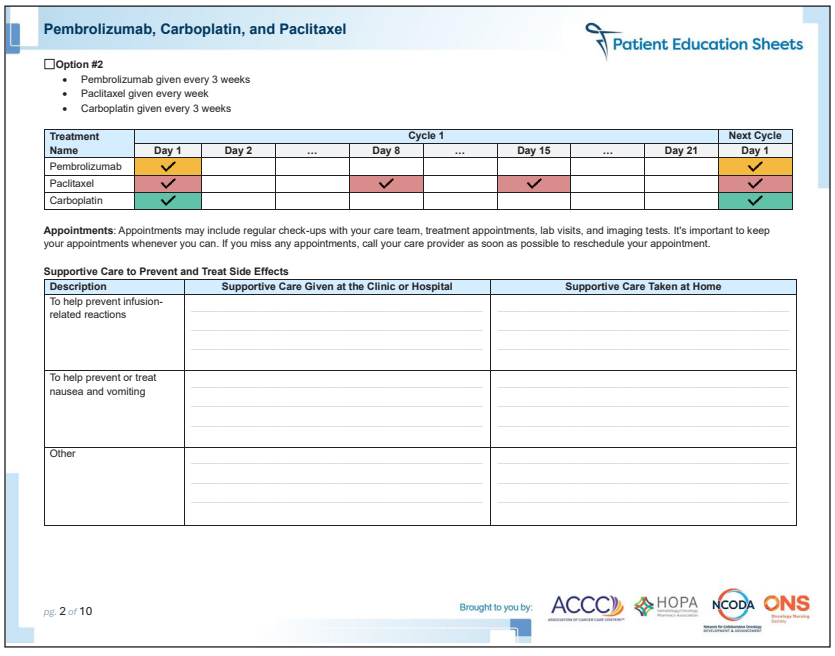
☐**Option #1**

- Pembrolizumab given every 3 weeks
- Paclitaxel given every 3 weeks
- Carboplatin given every 3 weeks

| Treatment Name | Cycle 1 | | | | | | | | Next Cycle |
|---|---|---|---|---|---|---|---|---|---|
| | Day 1 | Day 2 | Day 3 | Day 4 | Day 5 | Day 6 | ... | Day 21 | Day 1 |
| Pembrolizumab | ✓ | | | | | | | | ✓ |
| Paclitaxel | ✓ | | | | | | | | ✓ |
| Carboplatin | ✓ | | | | | | | | ✓ |

pg. 1 of 10

Brought to you by: ACCC HOPA NCODA ONS



**Pembrolizumab, Carboplatin, and Paclitaxel**

Patient Education Sheets

☐**Option #2**

- Pembrolizumab given every 3 weeks
- Paclitaxel given every week
- Carboplatin given every 3 weeks

| Treatment Name | Cycle 1 | | | | | | | | Next Cycle |
|---|---|---|---|---|---|---|---|---|---|
| | Day 1 | Day 2 | ... | Day 8 | ... | Day 15 | ... | Day 21 | Day 1 |
| Pembrolizumab | ✓ | | | | | | | | ✓ |
| Paclitaxel | ✓ | | | ✓ | | ✓ | | | ✓ |
| Carboplatin | ✓ | | | | | | | | ✓ |

**Appointments**: Appointments may include regular check-ups with your care team, treatment appointments, lab visits, and imaging tests. It's important to keep your appointments whenever you can. If you miss any appointments, call your care provider as soon as possible to reschedule your appointment.

**Supportive Care to Prevent and Treat Side Effects**

| Description | Supportive Care Given at the Clinic or Hospital | Supportive Care Taken at Home |
|---|---|---|
| To help prevent infusion-related reactions | | |
| To help prevent or treat nausea and vomiting | | |
| Other | | |

pg. 2 of 10

Brought to you by: ACCC HOPA NCODA ONS

These sample pages taken from a 10-page Patient Education Sheet on Pembrolizumab, Carboplatin and Paclitaxel provide clear, simple instructions and charts for the patient. More examples of the PES can be found on the following page.

# PATIENT EDUCATION SHEETS

CONTINUED FROM PREVIOUS PAGE

Content for PES is developed and reviewed by a multidisciplinary committee of oncology professionals, drawing expertise from pharmacists, nurses, advanced practice providers and other clinicians.

Importantly, the initiative is a collaborative effort led by NCODA in partnership with the Association of Cancer Care Centers, the Hematology/Oncology Pharmacy Association and the Oncology Nursing Society. These founding partners provide clinical insight, ensure comprehensive content and uphold standards that support consistency and accuracy in patient education across settings.

## RECENT PATIENT EDUCATION SHEETS

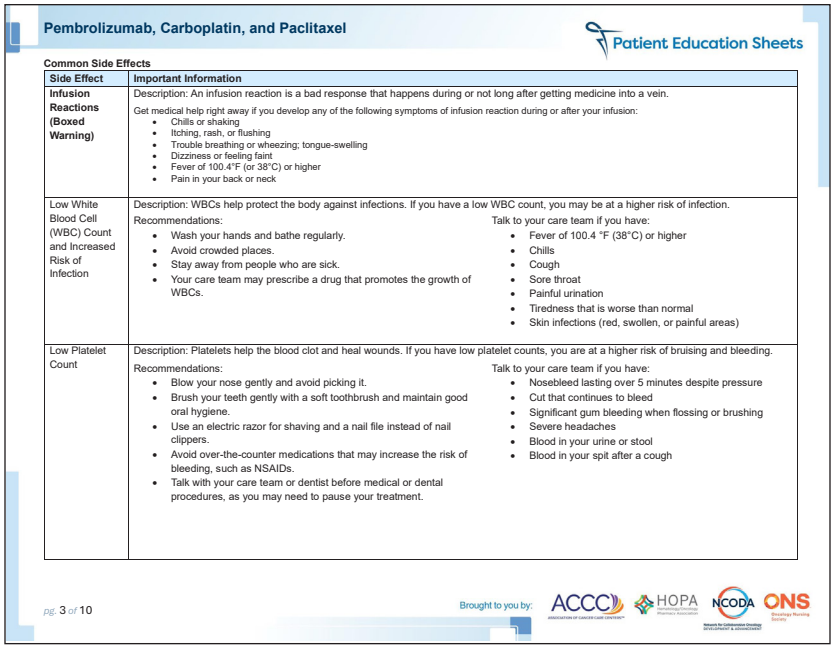
Below are 10 recently published or updated PES:

- **Zenocutuzumab**
- **Luspatercept**
- **Carboplatin and Etoposide**
- **Amivantamab and Lazertinib**
- **Understanding Hormonal Side Effects During Cancer Treatment**
- **Understanding Diarrhea During Cancer Treatment**
- **Understanding and Managing Treatment-Related Fatigue**
- **Teclistamab**
- **Trilaciclib**
- **Polatuzumab Vedotin, Rituximab, Cyclophosphamide, Doxorubicin and Prednisone**

## INTEGRATING PES INTO CARE WORKFLOWS

Clinics and oncology practices are encouraged to integrate PES into routine education workflows — including pre-therapy initiation, during treatment planning and at follow-up visits — to ensure patients and caregivers have clear and accessible information. Because PES can be easily printed or electronically shared, they help standardize patient education across teams and support adherence by providing consistent messaging regardless of setting.

By offering practical, up-to-date education resources developed by leaders in oncology care and reviewed by multidisciplinary experts, Patient Education Sheets help bridge communication gaps, empower patients and caregivers with knowledge, and support oncology care teams in delivering informed, compassionate care.



Pembrolizumab, Carboplatin, and Paclitaxel

Patient Education Sheets

Common Side Effects

| Side Effect | Important Information |
|---|---|
| **Infusion Reactions (Boxed Warning)** | Description: An infusion reaction is a bad response that happens during or not long after getting medicine into a vein.<br>Get medical help right away if you develop any of the following symptoms of infusion reaction during or after your infusion:<br>• Chills or shaking<br>• Itching, rash, or flushing<br>• Trouble breathing or wheezing; tongue-swelling<br>• Dizziness or feeling faint<br>• Fever of 100.4°F (or 38°C) or higher<br>• Pain in your back or neck |
| Low White Blood Cell (WBC) Count and Increased Risk of Infection | Description: WBCs help protect the body against infections. If you have a low WBC count, you may be at a higher risk of infection.<br>Recommendations:<br>• Wash your hands and bathe regularly.<br>• Avoid crowded places.<br>• Stay away from people who are sick.<br>• Your care team may prescribe a drug that promotes the growth of WBCs.<br>Talk to your care team if you have:<br>• Fever of 100.4 °F (38°C) or higher<br>• Chills<br>• Cough<br>• Sore throat<br>• Painful urination<br>• Tiredness that is worse than normal<br>• Skin infections (red, swollen, or painful areas) |
| Low Platelet Count | Description: Platelets help the blood clot and heal wounds. If you have low platelet counts, you are at a higher risk of bruising and bleeding.<br>Recommendations:<br>• Blow your nose gently and avoid picking it.<br>• Brush your teeth gently with a soft toothbrush and maintain good oral hygiene.<br>• Use an electric razor for shaving and a nail file instead of nail clippers.<br>• Avoid over-the-counter medications that may increase the risk of bleeding, such as NSAIDs.<br>• Talk with your care team or dentist before medical or dental procedures, as you may need to pause your treatment.<br>Talk to your care team if you have:<br>• Nosebleed lasting over 5 minutes despite pressure<br>• Cut that continues to bleed<br>• Significant gum bleeding when flossing or brushing<br>• Severe headaches<br>• Blood in your urine or stool<br>• Blood in your spit after a cough |

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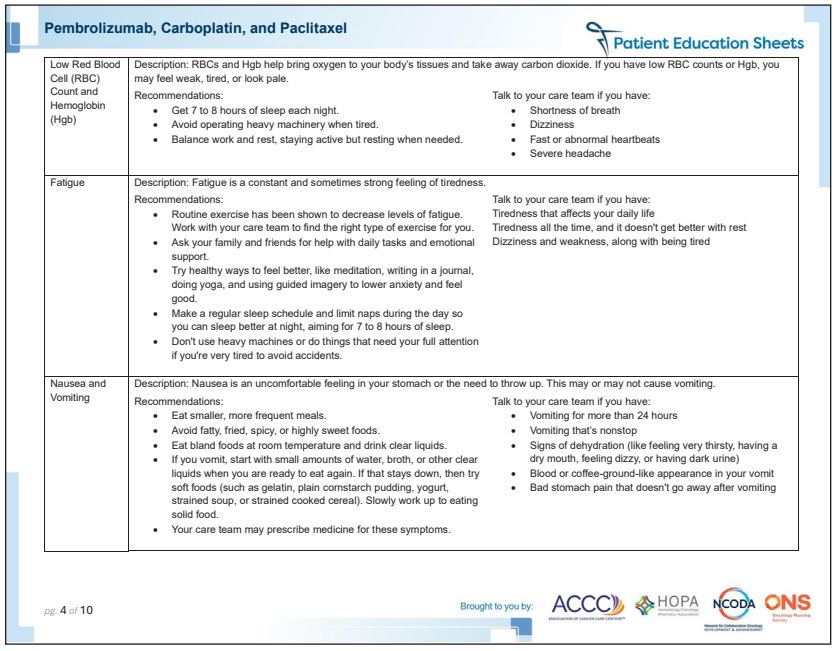
Brought to you by: ACCC HOPA NCODA ONS



Pembrolizumab, Carboplatin, and Paclitaxel

Patient Education Sheets

| | |
|---|---|
| Low Red Blood Cell (RBC) Count and Hemoglobin (Hgb) | Description: RBCs and Hgb help bring oxygen to your body's tissues and take away carbon dioxide. If you have low RBC counts or Hgb, you may feel weak, tired, or look pale.<br>Recommendations:<br>• Get 7 to 8 hours of sleep each night.<br>• Avoid operating heavy machinery when tired.<br>• Balance work and rest, staying active but resting when needed.<br>Talk to your care team if you have:<br>• Shortness of breath<br>• Dizziness<br>• Fast or abnormal heartbeats<br>• Severe headache |
| Fatigue | Description: Fatigue is a constant and sometimes strong feeling of tiredness.<br>Recommendations:<br>• Routine exercise has been shown to decrease levels of fatigue. Work with your care team to find the right type of exercise for you.<br>• Ask your family and friends for help with daily tasks and emotional support.<br>• Try healthy ways to feel better, like meditation, writing in a journal, doing yoga, and using guided imagery to lower anxiety and feel good.<br>• Make a regular sleep schedule and limit naps during the day so you can sleep better at night, aiming for 7 to 8 hours of sleep.<br>• Don't use heavy machines or do things that need your full attention if you're very tired to avoid accidents.<br>Talk to your care team if you have:<br>Tiredness that affects your daily life<br>Tiredness all the time, and it doesn't get better with rest<br>Dizziness and weakness, along with being tired |
| Nausea and Vomiting | Description: Nausea is an uncomfortable feeling in your stomach or the need to throw up. This may or may not cause vomiting.<br>Recommendations:<br>• Eat smaller, more frequent meals.<br>• Avoid fatty, fried, spicy, or highly sweet foods.<br>• Eat bland foods at room temperature and drink clear liquids.<br>• If you vomit, start with small amounts of water, broth, or other clear liquids when you are ready to eat again. If that stays down, then try soft foods (such as gelatin, plain cornstarch pudding, yogurt, strained soup, or strained cooked cereal). Slowly work up to eating solid food.<br>• Your care team may prescribe medicine for these symptoms.<br>Talk to your care team if you have:<br>• Vomiting for more than 24 hours<br>• Vomiting that's nonstop<br>• Signs of dehydration (like feeling very thirsty, having a dry mouth, feeling dizzy, or having dark urine)<br>• Blood or coffee-ground-like appearance in your vomit<br>• Bad stomach pain that doesn't go away after vomiting |

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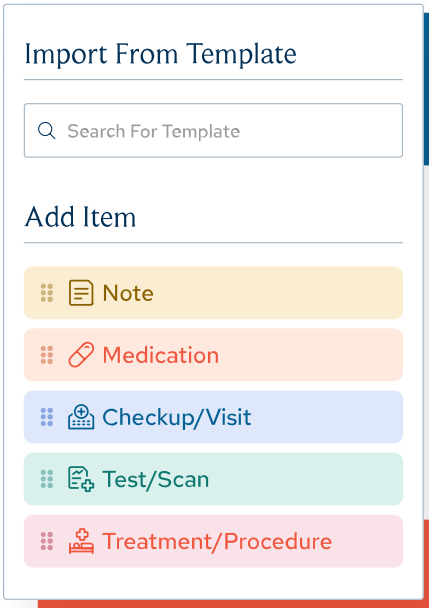
Brought to you by: ACCC HOPA NCODA ONS

**By offering practical, up-to-date education resources developed by leaders in oncology care and reviewed by multidisciplinary experts, Patient Education Sheets help bridge communication gaps, empower patients and caregivers with knowledge, and support oncology care teams in delivering informed, compassionate care.**

*Bring Clarity to Every Treatment Journey.*

# Introducing NCODA **Patient Treatment Calendars**

NCODA Patient Treatment Calendars help you turn detailed treatment plans into clear, personalized schedules patients and families can easily follow. Built with clinicians in mind, this trusted resource makes it simple to organize treatments, appointments, and key milestones into one structured, easy-to-understand calendar.


## FOR PROVIDERS:
## *Create. Customize. Share.*

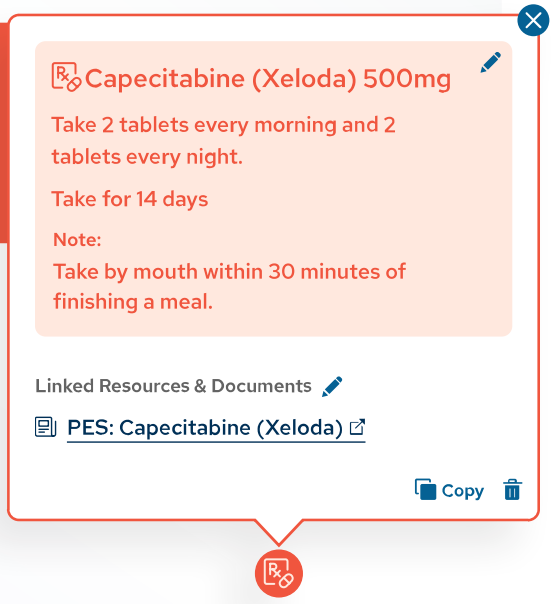
- Build calendars quickly using ready-to-use templates
- Personalize schedules to reflect each patient's care plan
- Securely share with patients and families
- Reduce administrative workload and save valuable time

***Support patient understanding without adding to your workflow.***

## FOR PATIENTS:
## *Clear Plans. Greater Confidence.*

- Simple, easy-to-read format
- Treatments, appointments, and milestones in one place
- Mobile-friendly access through secure links and QR codes
- Available anytime, anywhere

***When patients can clearly see what's ahead, they feel more confident moving forward.***




## *Personalized. Practical. Patient-Focused.*

Whether you select an existing template or create a new calendar tailored to your practice, NCODA Patient Treatment Calendars provide an efficient way to deliver organized, individualized care timelines.

Explore the resource today: ***PatientTreatmentCalendars.com***

# STAY UP-TO-DATE WITH THE LATEST ONCOLOGY INSIGHTS THROUGH NCODA WEBINARS

Explore NCODA's growing library of educational webinars designed to keep you informed, connected, and ahead in the evolving world of oncology care. Whether you're looking for the latest updates on clinical practice, policy developments or operational strategies, NCODA webinars deliver practical insights from leading experts and frontline practitioners.

Browse upcoming live sessions or access NCODA's archive of recorded content—anytime, anywhere. Use the keyword search to quickly locate topics most relevant to your role and patient population.

NCODA webinars are built for oncology professionals who value education that is both immediately applicable and strategically forward-looking. Each session brings together multidisciplinary perspectives — pharmacists, advanced practice providers, nurses, administrators, and policy experts — translating evidence, real-world experience and operational best practices into actionable guidance.

With rapid advancements in targeted therapies, biomarker-driven treatment decisions, reimbursement changes, and care coordination models, these webinars help your team remain confident, current and clinically agile.

## LATEST WEBINARS

▲ **Pharmacy Perspectives: Lifestyle Strategies & CTCAE Updates** Featuring Sonia Thomas, PharmD, BCOP, and Ming-Hei Tai, PharmD, BCOP. A practical discussion on integrating lifestyle modification strategies alongside Common Terminology Criteria for Adverse Events-aligned toxicity assessments to strengthen patient management and outcomes.

▲ **Students Talk: Q&A, Feedback, and Fresh Ideas** Featuring Mustafa Abacioglu, MS, Faculty of Pharmacy. An interactive forum highlighting student insights and fresh perspectives to support innovation in oncology practice.

▲ **Minimizing Toxicity from Amivantamab & Lazertinib** Featuring Jorge J. Nieva, MD. Clinical strategies for proactive toxicity monitoring and management when using these targeted therapies.

▲ **CE Opportunity: Educational & Equity Implications of Biomarker Testing & Targeted Therapy Access in NSCLC** Featuring Shawnny Eugene, PharmD, MBA, MS. Continuing education on biomarker-driven care, access challenges, and strategies to advance equitable testing and treatment pathways.

▲ **CE Opportunity: Nurses Talk Expanding Eligibility + Improving Outcomes in Allogeneic HCT** Featuring Katherine Hickey, AGACNP-BC. Continuing education exploring eligibility expansion and outcome optimization in allogeneic hematopoietic cell transplantation.

▲ **Techs Talk: Reducing Delays in Outpatient Oncology Pharmacy** Featuring Maddy Floysand, PharmD, and Shawnny Eugene, PharmD, MBA, MS. Operational strategies to streamline workflow and minimize treatment delays in outpatient oncology settings.

▲ **A Combination Treatment for Patients with Advanced Renal Cell Carcinoma** Featuring Brittney Carden, PharmD. An evidence-based overview of combination regimens in advanced RCC and practical implementation considerations.

For more information about **NCODA Webinars**, and links to archived content, scan the QR code above.

## RECENT ON-DEMAND & ARCHIVED WEBINARS

NCODA's extensive archive provides ongoing access to high-value sessions from 2025 and beyond:

▲ **Navigating the Course of Oral Anticancer Medications: An Interprofessional Approach** A CE session focused on oral oncolytic coordination, adherence, and collaborative management strategies.

▲ **October 2025 International Monthly Webinar: Oncology Care Essentials** Coverage of Medicare updates, clinical tools, and DPYD testing considerations.

▲ **November 2025 International Monthly Webinar: Preparing for 2026** Insights into legislative trends, access innovation, and pricing changes impacting oncology practice.

▲ **NCODA Connect & GU Navigation in Action** A community-focused session exploring nurse navigation and member platform engagement.

## WHY NCODA WEBINARS MATTERS FOR ONCOLOGY PROFESSIONALS

NCODA webinars are more than presentations. They are structured professional development experiences grounded in clinical evidence and operational reality. Many sessions offer continuing education credit, supporting certification maintenance while deepening clinical expertise. Just as importantly, they foster peer connection, shared problem-solving and alignment across multidisciplinary teams.

Whether you participate live to engage with faculty or access recordings on demand, NCODA's webinar library empowers your practice to adopt proven strategies, anticipate system-level changes, and integrate emerging science into patient-centered care.

# NCODA PUBLICATIONS: INFORMING, CONNECTING AND ADVANCING ONCOLOGY PRACTICE

NCODA's publications extend our mission beyond meetings and online education, creating platforms that inform, connect and elevate the oncology community year-round.

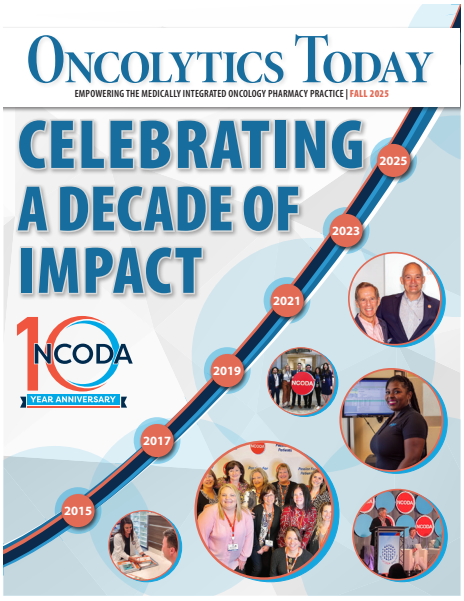
Together, ***Oncolytics Today***, ***SummitRewind***, ***ForumRewind*** and ***Inspire*** reflect the depth of expertise within medically integrated practices and the continued growth of NCODA's membership and professional reach.

***Oncolytics Today*** is NCODA's flagship publication and the cornerstone of its communications platform. With circulation expanding alongside membership growth, it reaches a broad and increasingly international audience.

The publication features original contributions from oncology pharmacists, physicians, advanced practice providers, nurses, administrators and policy leaders worldwide. Articles address clinical innovation, operational strategy, reimbursement and regulatory developments, advocacy priorities and real-world implementation models.

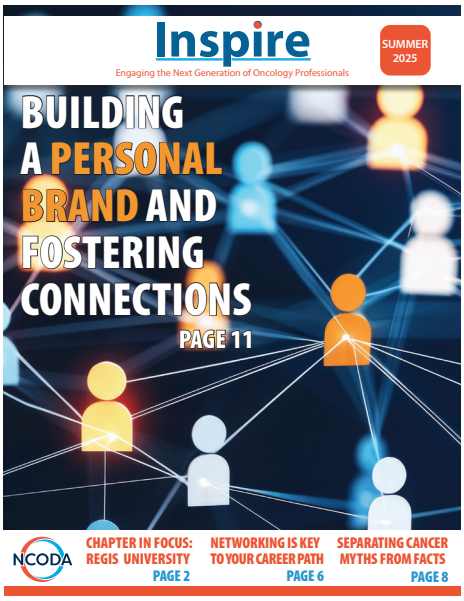
***Oncolytics Today*** has become a respected forum for multidisciplinary thought leadership, helping shape conversations around high-quality cancer care. Its growing contributor base and readership underscore its role as NCODA's most visible and influential publication.

***SummitRewind*** and ***ForumRewind*** capture key insights and practical takeaways from NCODA's live educational events, distilling presentations and panel discussions into concise, practice-focused summaries. The Rewinds allow attendees to revisit high-impact sessions and provide those unable to attend with accessible highlights, extending the impact of Summit and Forum throughout the year.





***Inspire*** is NCODA's digital publication for Professional Student Organization leaders and students exploring oncology practice. Focused on professional development and peer engagement, it highlights emerging voices while reinforcing the principles of medically integrated care.


Together, these publications strengthen professional connection and ensure that innovation and shared experience remain accessible as the NCODA community continues to grow.

# Where Innovation *Meets Evidence*

The **NCODA Oncology and Hematology Meeting Abstracts (NOHMA)** features newly submitted research, quality initiatives, and real-world oncology insights—now available to attendees before each meeting. Review the latest findings in advance, come prepared for deeper discussions, and engage with the evidence shaping medically integrated oncology practice.

## NCODA Oncology & Hematology Meeting Abstracts (NOHMA)

*Explore the Latest Research Before the Meeting Begins*

NCODA

MM+M Awards 2024 Finalist

# THE PQI PODCAST

The PQI Podcast, presented by NCODA, hosts clinical and administrative experts in oncology providing insight on important industry topics and how they value the Positive Quality Intervention (PQI) resource for their practice. The podcast also highlights patient stories of hope, determination, and how patient-centered care impacts the cancer journey.

**STREAMING NOW**

*Listen & follow along!*

NCODA

# NCODA TREATMENT SUPPORT KITS

## Bridging the Gap Between Treatment & Total Patient Care

When a patient begins a new cancer therapy, they need more than just a prescription—they need support. Every TSK is thoughtfully customized for specific oral oncology therapies and includes:

- **PATIENT-FRIENDLY EDUCATION**

  Clear, concise treatment guides to help patients understand what to expect and how to stay on track.

- **SUPPORTIVE CARE PRODUCTS**

  Therapy-specific over-the-counter items that proactively address common side effects—like nausea, mouth sores, or skin irritation.

- **ADHERENCE TOOLS**

  Creative, easy-to-use resources that empower patients to manage their medications and stay engaged in their care.

### BUILT FOR CARE TEAMS, DESIGNED FOR PATIENTS

NCODA provides most TSKs at no cost to member practices, integrating them seamlessly into the clinical workflow. Every kit reinforces the critical relationship between the patient and their care team.


### AVAILABLE KITS:

- abemaciclib
- abiraterone acetate
- bispecific
- cabozantinib
- capecitabine
- elranatamab
- fruquintinib
- inavolisib
- mirdametinib
- neratinib
- nirogacestat
- pacritinib
- tivozanib
- temozolomide

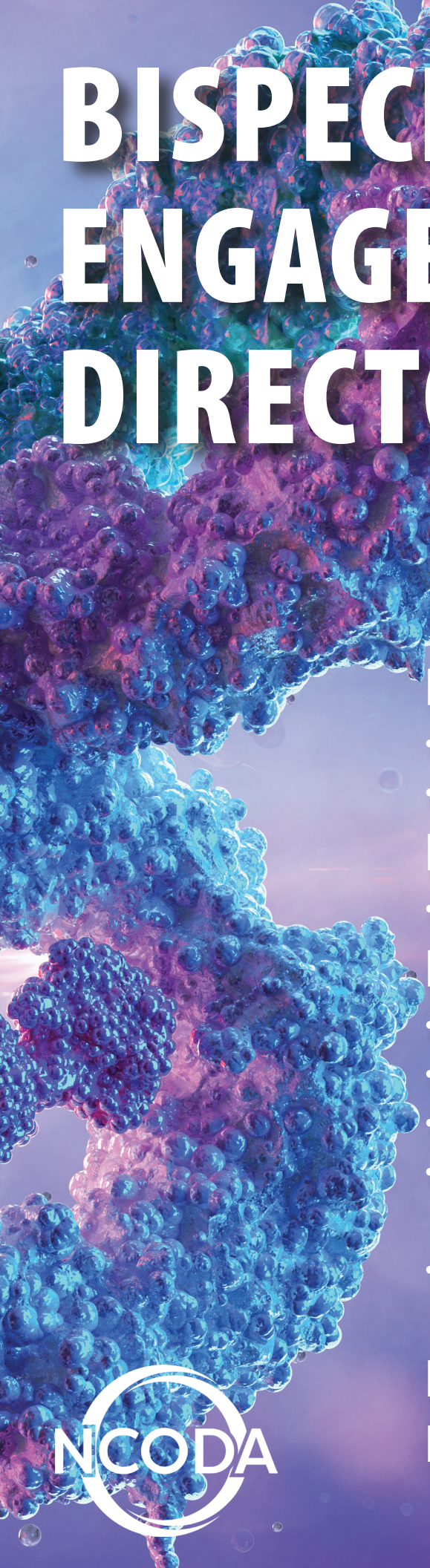
NCODA is a leading non-profit organization committed to enhancing patient-centered oncology care. Through collaboration, innovation, and the development of quality standards, NCODA supports medically integrated oncology teams in delivering exceptional treatment outcomes.

### Join NCODA

Becoming a member of NCODA provides access to a wealth of resources, including TSKs, educational materials, and a network of oncology professionals dedicated to patient-centered care.

NCODA

# BISPECIFIC T-CELL ENGAGERS (BTCEs) DIRECTORY





NCODA

## TABLE 1: BTCEs IN LYMPHOMA (AS OF FEBRUARY 2026)

| Drug | Mosunetuzumab-axgb (LUNSUMIO®, LUNSUMIO VELO™)[1–3] | Epcoritamab-bysp (EPKINLY®)[4,5] | Glofitamab-gxbm (COLUMVI™)[6,7] |
|---|---|---|---|
| **Manufacturer** | **Genentech, Inc.** | **AbbVie Inc. and Genmab US, Inc.** | **Genentech, Inc.** |
| **Target** | CD3xCD20 | CD3xCD20 | CD3xCD20 |
| **Indication(s)** | FL following 2 or more lines of therapy | (1) LBCL following 2 or more lines of therapy<br>(2) FL following 2 or more lines of therapy | DLBCL following 2 or more lines of therapy |
| **Route of Administration** | IV (LUNSUMIO®) or<br>SC (LUNSUMIO VELO™) | SC | IV |
| **Dosing Schedule** | C1: Days 1, 8, 15<br>C2+: Day 1, every 21 d, for up to 8 cycles for patients achieving CR; for up to 17 cycles for patients achieving PR or SD | C1-3: Days 1, 8 ,15, and 22<br>C4-9: Days 1 and 15<br>C10+: Day 1, every 28 d until progression | C1: Obinutuzumab, Day 1; glofitamab Days 8 and 15<br>C2-12: Day 1, every 21 d |
| **CRS Mitigation** | | | |
| SUD Schedule | IV<br>C1D1: 1 mg<br>C1D8: 2 mg<br>C1D15: 60 mg (FFD)<br><br>SC<br>C1D1: 5 mg<br>C1D8: 45 mg (FFD)<br>C1D15: 45 mg | LBCL<br>C1D1: 0.16 mg<br>C1D8: 0.8 mg<br>C1D15: 48 mg (FFD)<br>C1D22: 48 mg<br><br>FL<br>C1D1: 0.16 mg<br>C1D8: 0.8 mg<br>C1D15: 3 mg<br>C1D22: 48 mg (FFD) | C1D1: Obinutuzumab 1,000 mg<br>C1D8: 2.5 mg (first dose of glofitamab)<br>C1D15: 10 mg<br>C2D1+: 30 mg (FFD) |
| Premedications | (1) Acetaminophen 500–1,000 mg<br>(2) Diphenhydramine 50–100 mg (or equivalent)<br>(3) Dexamethasone 20 mg or methylprednisolone 80 mg<br><br>Note: Premedications are recommended for IV mosunetuzumab during C1 and C2 and for SC administration during C1 only. Regardless of route of administration, any patient who experienced CRS of any grade with the previous dose should receive premedications prior to the next dose | (1) Acetaminophen 650–1,000 mg<br>(2) Diphenhydramine 50 mg (or equivalent)<br>(3) Dexamethasone 15 mg or prednisolone 100 mg (or equivalent), before C1 treatments and for 3 consecutive days after<br><br>Continue dexamethasone thereafter if G2 or G3 CRS with prior dose | (1) Acetaminophen 500–1,000 mg<br>(2) Diphenhydramine 50 mg (or equivalent)<br>(3) Dexamethasone 20 mg (or equivalent) on C1D8, C1D15, C2D1, and C3D1. Continue if CRS occurs with prior dose |
| Hospitalization | Consider | LBCL: C1D15 (FFD): 24-h admission<br>FL: Consider | C1D8: 24-h admission |
| **CRS Incidence** | G1: 26%; G2: 17%; G3: 1%; G4: 1%; G5: 0% | LBCL: G1 37%; G2 17%; G3 3%; G4–5 0%<br>FL: G1 45%; G2 9%; G3 0%; G4–5 0% | G1: 47%; G2: 12%; G3: 3%; G4: 1%; G5: 0% |
| | Time course for CRS onset: C1D1: 23%; C1D8: 6%; C1D15: 36%; C2D1: 10%; C3+D1: 2%<br>Median time to CRS onset: C1D1: 5 h; C1D8: 20 h; C1D15: 27 h; C2D1: 38 h | Time course for CRS onset:<br>C1D1: LBCL 6%, FL 12%<br>C1D8: LBCL 12%, FL 6%<br>C1D15: LBCL 43%, FL 15%<br>C1D22: LBCL 5%, FL 37%<br>Median time to CRS onset:<br>After most recent dose: LBCL 24 h (range: 0–10 d), FL 59 h (range: 0.1–7 d)<br>After FFD: LBCL 21 h (range: 0–7 d), FL 61 h (range: 0.1–7 d) | Time course for CRS onset: C1D8: 42%; C1D15: 25%; C2: 26%; C3+: 1%<br>Median time to CRS onset: C1D8: 14 h (range: 6–52 h) |
| **Median Duration of CRS** | 3 d (range: 1–29 d) | 2 d (range: 1–27 d) | 30.5 h (range: 0.5–317 h) |
| **ICANS Incidence** | G1–2: 3%; G3–5: 0% | LBCL: G1 4.5%; G2 1.3%; G3–4 0%; G5 0.6%<br>FL: G1 3.9%; G2 2.4%; G3–4 0%; G5 0% | G1–2: 5%; G3–4: 3%; G5: 0% |

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**ABBREVIATIONS:** **ALL:** Acute Lymphoblastic Leukemia; **ALP:** alkaline phosphatase; **ALT:** Alanine Aminotransferase; **AST:** Aspartate Aminotransferase; **BCMA:** B-Cell Maturation Antigen; **BCP:** B-cell Precursor; **BTCE:** Bispecific T-Cell Engager; **CR:** Complete Response; **CrCl:** Creatinine Clearance; **CRS:** Cytokine Release Syndrome; **C:** Cycle; **CD:** Cluster of Differentiation; **D:** Day; **DLBCL:** Diffuse Large B Cell Lymphoma; **DLL3:** Delta-like ligand 3; **ES-SCLC:** Extensive Stage Small Cell Lung Cancer; **FFD:** First full dose; **FL:** Follicular Lymphoma; **G1:** Grade 1; **G2:** Grade 2; **G3:** Grade 3; **G4:** Grade 4; **G5:** Grade 5; **GGT** (gamma-glutamyl transferase), **GPRC5D:** G-protein-coupled receptor, class C, group 5, member D; **HLA:** Human Leukocyte Antigen; **ICANS:** Immune Effector Cell-Associated Neurotoxicity Syndrome; **IQR:** Interquartile Range; **IV:** Intravenous; **LBCL:** Large B-Cell Lymphoma; **MM:** Multiple Myeloma; **MRD:** Minimal Residual Disease; **N/A:** Not applicable; **NS:** Normal Saline; **PR:** Partial Response; **PTT:** Partial Thromboplastin Time; **R/R:** relapsed or refractory; **SC:** Subcutaneous; **SD:** Stable Disease; **VGPR:** Very Good Partial Response; **WBC:** White Blood Cell

**TABLE 1: BTCEs IN LYMPHOMA** (AS OF FEBRUARY 2026) *CONTINUED FROM PREVIOUS PAGE*

| Drug | Mosunetuzumab-axgb (LUNSUMIO®, LUNSUMIO VELO™)[1–3] | Epcoritamab-bysp (EPKINLY®)[4,5] | Glofitamab-gxbm (COLUMVI™)[6,7] |
|---|---|---|---|
| **Any Grade Adverse Events (with >25% Incidence)** | Lymphopenia (84%–100%), hypophosphatemia (48%–78%), anemia (60%–68%), leukopenia (60%), neutropenia (50%–58%), thrombocytopenia (33%–46%), CRS (30%–44%), fatigue (39%–42%), hyperglycemia (42%), rash (35%–39%), increased AST (28%–39%), hypomagnesemia (25%–34%), hypokalemia (27%–33%), increased ALT (32%–34%), headache (17%–32%), pyrexia (11%–29%), hyperuricemia (22% to 28%), musculoskeletal pain (20%–28%) | Lymphopenia (87%–94%), anemia (59%–62%), hyponatremia (51%–56%), hypophosphatemia (LBCL: 56%), injection site reactions (FL: 58%; LBCL: 27%), leukopenia (53%–58%), neutropenia (50%–55%), CRS(49%–51%), thrombocytopenia (48%–49%), increased AST (44%–48%), increased ALT (45%–47%), serious infection (FL: 40%; LBCL: 15%), hypercreatininemia (FL: 36%; LBCL: 24%), fatigue (29%–37%), upper respiratory tract infection (FL: 29%; LBCL: <10%), skin rash (FL: 28%; LBCL: 15%), hypokalemia (FL: 20%; LBCL: 34%), increased ALP (FL: 29%), hyperbilirubinemia (FL: 28%), hypomagnesemia (FL: 20%; LBCL: 31%), musculoskeletal pain (28%), pyrexia (24%–26%), diarrhea (20%–26%) | Lymphopenia (90%), hypofibrinogenemia (84%), anemia (72%), CRS (70%), hypophosphatemia (69%), neutropenia (56%), thrombocytopenia (56%), hyponatremia (49%), hypocalcemia (48%), increased GGT (33%), hypokalemia (32%) |
| **Grade 3 or > Adverse Events (with >25% Incidence)** | Lymphopenia (22%–98%), hypophosphatemia (46%), hyperglycemia (42%), neutropenia (26%–40%) | Lymphopenia (77%–82%), neutropenia (14%–32%) | Lymphopenia (83%), hypophosphatemia (28%), neutropenia (26%) |
| **REMS Program** | No | No | No |
| **Initial Approval** | December 2022 | May 2023 (LBCL), June 2024 (FL)<br>Note: See Table 4 for information on epcoritamab in combination with lenalidomide and rituximab | June 2023 |
| **Pivotal Trial(s)** | GO29781 | EPCORE NHL-1 | NP30179 |

**ABBREVIATIONS:** **ALL:** Acute Lymphoblastic Leukemia; **ALP:** alkaline phosphatase; **ALT:** Alanine Aminotransferase; **AST:** Aspartate Aminotransferase; **BCMA:** B-Cell Maturation Antigen; **BCP:** B-cell Precursor; **BTCE:** Bispecific T-Cell Engager; **CR:** Complete Response; **CrCl:** Creatinine Clearance; **CRS:** Cytokine Release Syndrome; **C:** Cycle; **CD:** Cluster of Differentiation; **D:** Day; **DLBCL:** Diffuse Large B Cell Lymphoma; **DLL3:** Delta-like ligand 3; **ES-SCLC:** Extensive Stage Small Cell Lung Cancer; **FFD:** First full dose; **FL:** Follicular Lymphoma; **G1:** Grade 1; **G2:** Grade 2; **G3:** Grade 3; **G4:** Grade 4; **G5:** Grade 5; **GGT** (gamma-glutamyl transferase), **GPRC5D:** G-protein-coupled receptor, class C, group 5, member D; **HLA:** Human Leukocyte Antigen; **ICANS:** Immune Effector Cell-Associated Neurotoxicity Syndrome; **IQR:** Interquartile Range; **IV:** Intravenous; **LBCL:** Large B-Cell Lymphoma; **MM:** Multiple Myeloma; **MRD:** Minimal Residual Disease; **N/A:** Not applicable; **NS:** Normal Saline; **PR:** Partial Response; **PTT:** Partial Thromboplastin Time; **R/R:** relapsed or refractory; **SC:** Subcutaneous; **SD:** Stable Disease; **VGPR:** Very Good Partial Response; **WBC:** White Blood Cell

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## TABLE 2 (1 OF 2): BTCEs IN MULTIPLE MYELOMA (AS OF FEBRUARY 2026)

| Drug | Teclistamab-cqyv (TECVAYLI®)[8, 9] | | | | Talquetamab-tgvs (TALVEY®)[10, 11] | | | |
|---|---|---|---|---|---|---|---|---|
| **Manufacturer** | **Janssen Biotech, Inc.** | | | | **Janssen Biotech, Inc.** | | | |
| **Target** | CD3xBCMA | | | | CD3xGPRC5D | | | |
| **Indication(s)** | MM following 4 or more lines of therapy | | | | MM following 4 or more lines of therapy | | | |
| **Route of Administration** | SC | | | | SC | | | |
| **Dosing Schedule** | C1: Days 1, 4, 7<br>C2+: Weekly until progression<br>For patients who have achieved and maintained a CR or better for >6 mo, consider biweekly dosing | | | | Weekly Dosing<br>C1: Days 1, 4, 7<br>C2+: Weekly until progression | | Biweekly Dosing<br>C1: Days 1, 4, 7, 10<br>C2+: Every 2 weeks until progression | |
| **CRS Mitigation** | | | | | | | | |
| SUD Schedule | C1D1: 0.06 mg/kgC1D3: 0.3 mg/kg<br>C1D5: 1.5 mg/kg (FFD) | | | | Weekly Dosing<br>C1D1: 0.01 mg/kg<br>C1D4: 0.06 mg/kg<br>C1D7: 0.4 mg/kg (FFD) | | Biweekly Dosing<br>C1D1: 0.01 mg/kg<br>C1D4: 0.06 mg/kg<br>C1D7: 0.4 mg/kg<br>C1D10: 0.8 mg/kg (FFD) | |
| Premedications | (1) Acetaminophen 650–1,000 mg (or equivalent) for C1<br>(2) Diphenhydramine 50 mg (or equivalent) for C1<br>(3) Dexamethasone 16 mg for C1 | | | | (1) Acetaminophen 650–1,000 mg (or equivalent) for C1<br>(2) Diphenhydramine 50 mg (or equivalent) for C1<br>(3) Dexamethasone 16 mg (or equivalent) for C1 | | | |
| Hospitalization | All SUDs and FFD: 48-h admission | | | | All SUDs and FFD: 48-h admission | | | |
| **CRS Incidence** | G1 | G2 | G3 | G4–5 | G1 | G2 | G3 | G4–5 |
| | 50% | 21% | 1% | 0% | 57% | 17% | 2% | 0% |
| | Time course for CRS onset<br><br>C1D1: 42%<br>C1D3: 35%<br>C1D5: 24%<br>Subsequent doses: <3% | | Median time to CRS onset<br><br>All doses: 2 d (range: 1–6 d) | | Time course for CRS onset<br><br>Weekly Dosing<br>C1D1: 29%<br>C1D4: 44%<br>C1D7: 30%<br><br>Biweekly Dosing<br>C1D7: 33%<br>C1D10: 12% | | Median time to CRS onset<br><br>All doses: 27 h<br>(range: 0.1–167 h) | |
| **Median Duration of CRS** | 2 d (range: 1–9 d) | | | | 17 h (range: 1–622 h) | | | |
| **ICANS Incidence** | Any grade: 6% | | | | Any grade: 9% | | | |
| **Any Grade Adverse Events (with >25% Incidence)** | Lymphopenia (92%), leukopenia (86%), neutropenia (84%), pyrexia (76%), CRS (72%), thrombocytopenia (71%), hypoalbuminemia (68%), anemia (67%), neurotoxicity (57%), musculoskeletal pain (44%), increased ALP (42%), hypophosphatemia (38%), increased GGT (37%), injection-site reaction (37%), hyponatremia (35%), increased AST (34%), fatigue (33%), hypocalcemia (31%), hypercreatininemia (30%), infection (30%), diarrhea (29%), increased ALT (28%), upper respiratory tract infection (26%), nausea (25%), headache (25%) | | | | Lymphopenia (90%), pyrexia (83%), CRS (76%), leukopenia (73%), dysgeusia (49%–70%), anemia (67%), neutropenia (64%), weight loss (35%–62%), thrombocytopenia (62%), hypoalbuminemia (66%), neurotoxicity (55%), nail disorder (50%), increased ALP (49%), hypophosphatemia (44%), musculoskeletal pain (43%), skin disorder (41%), rash (38%), increased GGT (38%), fatigue (37%), xerostomia (34%), increased ALT (33%), increased AST (31%), hypokalemia (31%), hyponatremia (31%), xerosis (30%) | | | |
| **Grade 3 or > Adverse Events (with >25% Incidence)** | Neutropenia (64%), anemia (37%), lymphopenia (32%) | | | | Lymphopenia (80%), leukopenia (35%), neutropenia (35%), anemia (30%) | | | |
| **REMS Program** | Yes | | | | Yes | | | |
| **Initial Approval** | October 2022 | | | | August 2023 | | | |
| **Pivotal Trial(s)** | MajesTEC-1 | | | | MonumenTAL-1 | | | |

**ABBREVIATIONS:** **ALL:** Acute Lymphoblastic Leukemia; **ALP:** alkaline phosphatase; **ALT:** Alanine Aminotransferase; **AST:** Aspartate Aminotransferase; **BCMA:** B-Cell Maturation Antigen; **BCP:** B-cell Precursor; **BTCE:** Bispecific T-Cell Engager; **CR:** Complete Response; **CrCl:** Creatinine Clearance; **CRS:** Cytokine Release Syndrome; **C:** Cycle; **CD:** Cluster of Differentiation; **D:** Day; **DLBCL:** Diffuse Large B Cell Lymphoma; **DLL3:** Delta-like ligand 3; **ES-SCLC:** Extensive Stage Small Cell Lung Cancer; **FFD:** First full dose; **FL:** Follicular Lymphoma; **G1:** Grade 1; **G2:** Grade 2; **G3:** Grade 3; **G4:** Grade 4; **G5:** Grade 5; **GGT** (gamma-glutamyl transferase), **GPRC5D:** G-protein-coupled receptor, class C, group 5, member D; **HLA:** Human Leukocyte Antigen; **ICANS:** Immune Effector Cell-Associated Neurotoxicity Syndrome; **IQR:** Interquartile Range; **IV:** Intravenous; **LBCL:** Large B-Cell Lymphoma; **MM:** Multiple Myeloma; **MRD:** Minimal Residual Disease; **N/A:** Not applicable; **NS:** Normal Saline; **PR:** Partial Response; **PTT:** Partial Thromboplastin Time; **R/R:** relapsed or refractory; **SC:** Subcutaneous; **SD:** Stable Disease; **VGPR:** Very Good Partial Response; **WBC:** White Blood Cell

## TABLE 2 (2 OF 2): BTCEs IN MULTIPLE MYELOMA (AS OF FEBRUARY 2026)

| Drug | Elranatamab-bcmm (ELREXFIO®)[12, 13] | Linvoseltamab-gcpt (LYNOZYFIC™)[14, 15] |
|---|---|---|
| **Manufacturer** | **Pfizer** | **Regeneron Pharmaceuticals, Inc.** |
| **Target** | CD3xBCMA | CD3xGPRC5D |
| **Indication(s)** | MM following 4 or more lines of therapy | MM following 4 or more lines of therapy |
| **Route of Administration** | SC | IV |
| **Dosing Schedule** | C1: Days 1, 4, 8<br>C2+: Weekly through Week 24<br>Weeks 25–48 (in patients achieving a PR or better at 24 weeks with response maintained for ≥2 months): Biweekly<br>Week 49+ (for patients who have maintained the response following 24 weeks of treatment at the biweekly dosing schedule): Every 4 wk | C1: Days 1, 8, 15<br>C2+: Weekly through Week 13<br>Week 14+: Biweekly<br>Week 24+ (for patients who have achieved and maintained VGPR or better at or after Week 24 and received at least 17 doses of 200 mg): Every 4 wk |
| **CRS Mitigation** | | |
| SUD Schedule | C1D1: 12 mg<br>C1D4: 32 mg<br>C1D8: 76 mg (FFD) | C1D1: 5 mg<br>C1D8: 25 mg<br>C1D15: 200 mg (FFD) |
| Premedications | (1) Acetaminophen 650 mg (or equivalent) for C1<br>(2) Diphenhydramine 25 mg (or equivalent) for C1<br>(3) Dexamethasone 20 mg (or equivalent) for C1 | 1) Acetaminophen 650–1000 mg (or equivalent) for SUDs and first and second treatment doses<br>(2) Diphenhydramine 25 mg (or equivalent) for SUDS and first and second treatment doses<br>(3) Dexamethasone 40 mg (or equivalent) for SUDs and first treatment dose<br><br>Once tolerated without CRS or infusion-related reactions, 10 mg dexamethasone (or equivalent) prior to the subsequent treatment dose |
| Hospitalization | C1D1: 48-h admission<br>C1D4: 24-h admission | C1D1 and C1D8: 24-h admission |
| **CRS Incidence** | G1: 44%; G2: 14%; G3: 1%; G4–5: 0% | G1: 35%; G2: 10%; G3: 1%; G4–5: 0% |
| | Time course for CRS onset<br><br>C1D1: 43%<br>C1D4: 19%<br>C1D8: 7%<br>C2D1: 2% | Median time to CRS onset<br><br>All doses: 2 d<br>(range: 1–9 d) |
| | Time course for CRS onset<br><br>C1D1: 38%<br>C1D8: 17%<br>C1D15: 10%<br>C2D1: 4% | Median time for CRS onset<br><br>All doses: 11 h (range: 1–184 h) |
| **Median Duration of CRS** | 2 d (range: 1–19 d) | 15 h (range: 1–76 h) |
| **ICANS Incidence** | Any grade: 3% | Any grade: 8% |
| **Any Grade Adverse Events (with >25% Incidence)** | Lymphopenia (91%), leukopenia (69%), anemia (68%), neutropenia (62%), thrombocytopenia (61%), neurotoxicity (59%), CRS (13%–58%), hypoalbuminemia (55%), fatigue (43%), severe infection (42%), increased AST (40%), hypercreatininemia (38%), injection-site reaction (37%), hypokalemia (36%), diarrhea (36%), increased ALT (36%), upper respiratory tract infection (36%), musculoskeletal pain (34%), increased ALP (34%), decreased CrCl (32%), pneumonia (25%–32%), decreased appetite (26%), skin rash (26%) | Lymphopenia (97%), anemia (72%), thrombocytopenia (64%), leukopenia (63%), neutropenia (62%), increased AST (61%), increased ALT (46%), hypophosphatemia(55%), neurotoxicity (54%), musculoskeletal pain (53%), hypercreatininemia (47%), CRS (46%), serious infection (42%), cough (39%), upper respiratory tract infection (35%), diarrhea (35%), fatigue (34%), pneumonia (28%) |
| **Grade 3 or > Adverse Events (with >25% Incidence)** | Lymphopenia (84%), neutropenia (51%), anemia (43%), leukopenia (40%), thrombocytopenia (32%) | Lymphopenia (92%), neutropenia (47%), anemia (42%), leukopenia (31%) |
| **REMS Program** | Yes | Yes |
| **Initial Approval** | August 2023 | July 2025 |
| **Pivotal Trial(s)** | MagnetisMM-3 | LINKER-MM1 |

**ABBREVIATIONS:** **ALL:** Acute Lymphoblastic Leukemia; **ALP:** alkaline phosphatase; **ALT:** Alanine Aminotransferase; **AST:** Aspartate Aminotransferase; **BCMA:** B-Cell Maturation Antigen; **BCP:** B-cell Precursor; **BTCE:** Bispecific T-Cell Engager; **CR:** Complete Response; **CrCl:** Creatinine Clearance; **CRS:** Cytokine Release Syndrome; **C:** Cycle; **CD:** Cluster of Differentiation; **D:** Day; **DLBCL:** Diffuse Large B Cell Lymphoma; **DLL3:** Delta-like ligand 3; **ES-SCLC:** Extensive Stage Small Cell Lung Cancer; **FFD:** First full dose; **FL:** Follicular Lymphoma; **G1:** Grade 1; **G2:** Grade 2; **G3:** Grade 3; **G4:** Grade 4; **G5:** Grade 5; **GGT** (gamma-glutamyl transferase), **GPRC5D:** G-protein-coupled receptor, class C, group 5, member D; **HLA:** Human Leukocyte Antigen; **ICANS:** Immune Effector Cell-Associated Neurotoxicity Syndrome; **IQR:** Interquartile Range; **IV:** Intravenous; **LBCL:** Large B-Cell Lymphoma; **MM:** Multiple Myeloma; **MRD:** Minimal Residual Disease; **N/A:** Not applicable; **NS:** Normal Saline; **PR:** Partial Response; **PTT:** Partial Thromboplastin Time; **R/R:** relapsed or refractory; **SC:** Subcutaneous; **SD:** Stable Disease; **VGPR:** Very Good Partial Response; **WBC:** White Blood Cell

## TABLE 3: BTCEs IN OTHER INDICATIONS (AS OF FEBRUARY 2026)

| Drug | Blinatumomab (BLINCYTO®)[16–19] | Tebentafusp-tebn (KIMMTRAK®)[20,21] | Tarlatamab-dlle (IMDELLTRA ®)[22–24] |
|---|---|---|---|
| **Manufacturer** | Amgen, Inc. | Immunocore Commercial LLC | Amgen, Inc. |
| **Target** | CD3xCD19 | CD3xgp100peptide-HLA | CD3xDLL3 |
| **Indication(s)** | (1) MRD+ BCP-ALL<br>(2) R/R BCP-ALL<br>(3) BCP-ALL in the consolidation phase | HLA-A*02:01-positive unresectable or metastatic uveal melanoma | ES-SCLC following progression on platinum-based chemotherapy |
| **Route of Administration** | IV | IV | IV |
| **Dosing Schedule** | MRD+ BCP-ALL and BCP-ALL in consolidation phase<br>Induction Cycle 1: Days 1–28 then 14 d off<br>Consolidation Cycles 2–4: Days 1–28 then 14 d off<br><br>R/R BCP-ALL<br>Induction C1 and C2: Days 1–28 then 14 days off<br>Consolidation C3–5: Days 1–28 then 14 days off<br>Continued Therapy C6–9: Days 1–28 then 56 days off | Once weekly until progression | C1: Days 1, 8 ,15<br>C2+: Days 1 and 15; every 28 d until progression |
| **CRS Mitigation** | | | |
| SUD Schedule | R/R BCP-ALL, Induction Cycle 1:<br>Days 1–7: 9 mcg/d<br>Days 8–28: 28 mcg/d<br>Note: See PI for dosing for patients under 45 kg | D1: 20 mcg<br>D8: 30 mcg<br>D15: 68 mcg (FFD) | C1D1: 1 mg<br>C1D8: 10 mg (FFD)<br>C1D15: 10 mg |
| Premedications | MRD+ BCP-ALL and BCP-ALL in consolidation phase<br>Corticosteroid: Prednisone 100 mg (or equivalent) D1 in each cycle<br><br>For adults with R/R BCP-ALL<br>Corticosteroid: Dexamethasone 20 mg D1 in each cycle, prior to a step-up dose, and when restarting an infusion after interruption of ≥4 h | None | (1) Dexamethasone 8 mg (or equivalent) on C1D1 and C1D8<br>(2) 1L NS IV over 4–5 h immediately after infusion completion on C1D1, C1C8, and C1D15 |
| Hospitalization | MRD+ BCP-ALL and BCP-ALL in consolidation phase: C1 (3 d) and C2 (2 d)<br>R/R BCP-ALL: C1 (9 d), C2 (2 d) | D1, D8, and D15: 16 h monitoring<br><br>Monitoring should be done in an appropriate healthcare setting | C1D1, C1D8: 22–24 h monitoring<br>C1D15: 6–8 h monitoring<br>Subsequent infusions: 2 h monitoring<br><br>Monitoring should be done in an appropriate healthcare setting |
| **CRS Incidence** | MRD+ BCP-ALL (any grade): 15%<br>R/R BCP-ALL (any grade): 7%<br>BCP-ALL in consolidation phase (any grade): 16% | G1: 12%; G2: 76%; G3: 1%; G4-5: 0% | G1: 34%; G2: 19%; G3: 1%; G4: 0.5%; G5: 0% |
| | Time course for CRS onset: Not reported<br>Median time to CRS onset: All doses: 2 d | Time course for CRS onset<br>Day 1: 85%<br>Day 8: 75%<br>Day 15: 60%<br>Day 22: 30%<br>Day 29: 10%<br>Median time to CRS onset: All doses: Within the day of the infusion | Time course for CRS onset<br>C1D1: 39%<br>C1D8: 28%<br>C1D15: 6%<br>C1D1: 2%<br>Median time to CRS onset: All doses: 14 h (range: 1–268 h) |
| **Median Duration of CRS** | 5 d | 2 d | 4 d (IQR 2–6 d) |
| **ICANS Incidence** | Any grade: 8% | N/A | G1: 5%; G2–4: 4%; G5: 0% |

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**TABLE 3: BTCEs IN OTHER INDICATIONS** (AS OF FEBRUARY 2026) *CONTINUED FROM PREVIOUS PAGE*

| Drug | Blinatumomab (BLINCYTO®)[16–19] | Tebentafusp-tebn (KIMMTRAK®)[20, 21] | Tarlatamab-dlle (IMDELLTRA®)[22–24] |
|---|---|---|---|
| **Any Grade Adverse Events (with >25% Incidence)** | Pyrexia (55%–91%), lymphocytopenia (80%), infusion-related reactions (30%–77%), headache (23%–39%), neurotoxicity (65%), infections (28%–39%), tremor (31%), neutropenia (15%–31%), anemia (infants, children, adolescents: 41%; adults: 24%–25%), chills (28%), thrombocytopenia (infants, children, adolescents: 34%; adults: 10%–21%), hypertension (infants, children, adolescents: 26%; adults: 8%) | Lymphocytopenia (91%), CRS (89%), hypercreatininemia (87%), skin rash (83%), pyrexia (76%), pruritus (69%), hyperglycemia (66%), increased ALT (≤65%), increased AST (≤65%), fatigue (64%), anemia (51%), hypophosphatemia (51%), chills (48%), hypoalbuminemia (47%), hypocalcemia (45%), abdominal pain (45%), edema (45%), nausea (49%), hypotension (39%), hyperlipasemia (37%), hypomagnesemia (34%), increased ALP (34%), antibody development (29%–33%), headache (31%), xeroderma (31%), vomiting (30%), hyponatremia (30%), hyperkalemia (29%), hypopigmentation (28%), skin edema (27%), hyperbilirubinemia (27%), diarrhea (25%), erythema of skin (24%–25%) | Lymphocytopenia (65%–84%), neurotoxicity (≤65%), hyponatremia (57%–68%), CRS (55%–56%), anemia (51%–58%), fatigue (39%–51%), leukopenia (44%–50%), hypokalemia (41%–50%), increased AST (40%–44%), increased ALT (32%–42%), infection (43%), pyrexia (29%–36%), decreased appetite (34%–37%), dysgeusia (28%–36%), thrombocytopenia (25%–33%), hypomagnesemia (21–33%), musculoskeletal pain (27%–30%), constipation (30%), hypercreatininemia (23%–29%), hypernatremia (26%–35%), prolonged PTT (26%), nausea (22%–25%) |
| **Grade 3 or > Adverse Events (with >25% Incidence)** | Lymphocytopenia (80%), neutropenia (15% to 28%) | Lymphocytopenia (56%) | Lymphocytopenia (27%–57%) |
| **REMS Program** | No | No | No |
| **Initial Approval** | December 2014 | January 2022 | May 2024 |
| **Pivotal Trial(s)** | BLAST, TOWER, ECOG-ACRIN E1910 | IMCgp100-202 | DeLLphi-301, DeLLphi-304 |

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**Kelly Brunk**

**Madelyn Floysand**

Chart updated by **Kelly Brunk**, PharmD, MBA, BCOP, Senior Manager of Clinical Excellence at NCODA, Yorkville, Illinois, and **Madelyn Floysand,** PharmD, Oncology, Advocacy, Health Policy & Equity Fellow at NCODA, Denver.

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## TABLE 4 (1 OF 2): BTCEs IN COMBINATION REGIMENS (AS OF FEBRUARY 2026)

<table>
<tr><th>Combination</th><th>Epcoritamab-bysp (EPKINLY®) and R² (Lenalidomide and Rituximab)[25]</th><th>Teclistamab-cqyv (TECVAYLI®) and Talquetamab-tgvs (TALVEY®)[26,27]</th></tr>
<tr><td>Indication</td><td>FL following 1 or more lines of therapy</td><td>MM following 4 or more lines of therapy</td></tr>
<tr><td>Dosing Schedule</td><td>Cycle length: 28 d<br><table><tr><th>Epcoritamab</th><th>Lenalidomide</th><th>Rituximab</th></tr><tr><td>C1-3: Day 1, 8 ,15, and 22<br>C4-12: Day 1</td><td>C1-12: QD, Days 1-21</td><td>C1: Day 1, 8, 15, 22<br>C2-5: Day 1</td></tr></table></td><td>Cycle length: 28 d<br>C1: 3 SUDs administered 2–4 days apart and prior to FFD<br>C2: Teclistamab and talquetamab biweekly<br>C4+ (if PR or better is achieved): Teclistamab and talquetamab monthly until progression</td></tr>
<tr><td>CRS Mitigation</td><td></td><td></td></tr>
<tr><td>SUD Schedule</td><td>C1D1: 0.16 mg<br>C1D8: 0.8 mg<br>C1D15: 3 mg<br>C1D22: 48 mg (FFD)</td><td><table><tr><th>SUD</th><th>Talquetamab</th><th>Teclistamab</th></tr><tr><td>SUD 1</td><td>0.01 mg/kg</td><td>0.06 mg/kg</td></tr><tr><td>SUD 2</td><td>0.06 mg/kg</td><td>0.3 mg/kg</td></tr><tr><td>SUD 3</td><td>0.4 mg/kg</td><td>1.5 mg/kg</td></tr><tr><td>FFD</td><td>0.8 mg/kg</td><td>3 mg/kg</td></tr></table>Teclistamab is administered before talquetamab.</td></tr>
<tr><td>Premedications</td><td>(1) Acetaminophen 650–1,000 mg<br>(2) Diphenhydramine 50 mg (or equivalent)<br>(3) Dexamethasone 15 mg or prednisolone 100 mg (or equivalent), before C1 treatments and for 3 consecutive days after<br><br>Continue dexamethasone thereafter if G2 or G3 CRS with prior dose</td><td>(1) Acetaminophen 650–1,000 mg (or equivalent) for C1<br>(2) Diphenhydramine 50 mg (or equivalent) for C1<br>(3) Dexamethasone 16 mg for C1</td></tr>
<tr><td>Hospitalization</td><td>Consider</td><td>For 48 h after administration of all SUDs and FFD</td></tr>
<tr><td>CRS Incidence</td><td><table><tr><td>G1</td><td>G2</td><td>G3–4</td><td>G5</td></tr><tr><td>19%</td><td>5%</td><td>12%</td><td>0%</td></tr></table>Time course for CRS onset<br>C1D1: 5%<br>C1D8: 4%<br>C1D15: 2%<br>C1D22: 18%<br><br>Median time to onset of CRS<br>From the most recent dose: 78 h (range: 0.2–12 d)<br><br>After the FFD: 41 h (range: 0.3–12 d)</td><td><table><tr><td>G1–2</td><td>G3</td><td>G4–5</td></tr><tr><td>77%</td><td>2%</td><td>0%</td></tr></table>Median time to onset and duration of CRS<br>were 2 days each.</td></tr>
<tr><td>ICANS Incidence</td><td>Any grade: 1%</td><td>Any grade: 3% (G3: 1%)</td></tr>
<tr><td>What is Different Between the Single Agent(s) and Combination Therapy?</td><td>• When epcoritamab is used as a single agent for FL, it is continued until disease progression or unacceptable toxicity. When used with R², treatment is continued for a total of 12 cycles or until disease progression or unacceptable toxicity, whichever occurs first.<br>• CRS occurred in fewer patients when used in combination with R² (26%) versus monotherapy (49%).<br>• When epcoritamab is used in combination with R², dosing shifts to once per cycle beginning in Cycle 4, with administration only on Day 1 for Cycles 4 and beyond.</td><td>• Step up dosing is different.<br>• In combination, talquetamab is administered every 2 weeks, while teclistamab is given at a higher dose and less frequent interval (3 mg/kg every 2 weeks) compared with weekly dosing when used as monotherapy (1.5 mg/kg every week).</td></tr>
<tr><td>Additional Considerations</td><td>• REMS program with lenalidomide</td><td>• Both agents require unique REMS Dispense Authorizations (RDAs).</td></tr>
<tr><td>Any Grade Adverse Events (with >25% Incidence)</td><td>Rash (46%), upper respiratory tract infections (33%), fatigue (31%), injection-site reactions (27%), constipation (26%)</td><td>CRS (79%), neutropenia (73%), taste changes (65%), nonrash skin adverse event (61%), anemia (56%), nail-related adverse event (52%), pyrexia (51%), diarrhea (48%), cough (45%), dry mouth (43%), thrombocytopenia (43%), COVID-19 (40%), rash adverse event (39%), pneumonia (36%), weight decrease (34%), fatigue (28%)</td></tr>
<tr><td>Grade 3 or > Adverse Events (with >25% Incidence)</td><td>None</td><td>Neutropenia (68%), anemia (38%), thrombocytopenia (30%)</td></tr>
<tr><td>Initial Approval</td><td>November 18, 2025</td><td>Not FDA-approved as of February 2, 2026</td></tr>
<tr><td>Pivotal Trial</td><td>EPCORE FL-1</td><td>RedirecTT-1</td></tr>
</table>

## TABLE 4 (2 OF 2): BTCEs IN COMBINATION REGIMENS (AS OF FEBRUARY 2026)

| Combination | Epcoritamab-bysp (EPKINLY®) and GEMOX (Gemcitabine and Oxaliplatin)[28] | Glofitamab-gxbm (COLUMVI™) and GEMOX (Gemcitabine and Oxaliplatin)[29] |
|---|---|---|
| **Indication** | DLBCL following 1 or more lines of therapy | DLBCL following 1 or more lines of therapy |
| **Dosing Schedule** | Cycle length: 28 d<br>**Epcoritamab**: C1-3: Day 1, 8 ,15, and 22; C4-12: Day 1<br>**GEMOX**: C1-4: Gemcitabine: Day 1 and 15; Oxaliplatin: Day 1 and 15 | Cycle length: 21 d<br>**Obinutuzumab**: C1D1 only<br>**Glofitamab**: C1: Day 8 and Day 15; C2-12: Day 1<br>**GEMOX**: C1-8: Gemcitabine: Day 1; Oxaliplatin: Day 1 |
| **CRS Mitigation** | | |
| SUD Schedule | C1D1: 0.16 mg<br>C1D8: 0.8 mg<br>C1D15: 48 mg (FFD)<br>C1D22: 48 mg | C1D1: Obinutuzumab<br>C1D8: 2.5 mg (first dose of glofitamab)<br>C1D15: 10 mg<br>C2D1: 30 mg (FFD) |
| Premedications | (1) Acetaminophen 650–1,000 mg<br>(2) Diphenhydramine 50 mg (or equivalent)<br>(3) Dexamethasone 15 mg or prednisolone 100 mg (or equivalent), before C1 treatments and for 3 consecutive days after<br><br>Continue dexamethasone thereafter if G2 or G3 CRS with prior dose. | (1) Acetaminophen 500–1,000 mg<br>(2) Diphenhydramine 50 mg (or equivalent)<br>(3) Dexamethasone 20 mg (or equivalent) on C1D8, C1D15, C2D1, and C3D1. Continue if CRS occurs with prior dose. |
| Hospitalization | C1D15 (FFD): 24-h admission | C1D8 (first glofitamab dose): 24-h admission |
| **CRS Incidence** | G1: 28%; G2: 23%; G3: 1%; G4–5: 0%<br>Time course for CRS onset: C1: 84%; C1D15 (FFD): 63%<br>Median time to onset of CRS: Most events occurred in C1 following FFD. | G1: 31%; G2: 11%; G3: 2%; G4–5: 0%<br>Time course for CRS onset: C1D8: 35%; C1D15: 13%; C2D1: 11%; C3D1: 7%; C4+: 11%<br>Median time to onset of CRS: C1D8: 14 h; C1D15: 32 h; C2D1: 38 h; C3+: 37 h |
| **ICANS Incidence** | Any grade: 3% (G3: 1%) | Any grade: 2% (G3: 1%) |
| **Difference Between Single Agent(s) and Combination Therapy?** | • Combination allows dose-dense GemOx without new safety signals. | • Glofitamab combination therapy retains the same obinutuzumab lead-in and step-up dosing strategy as monotherapy; differences are primarily related to the addition of fixed-duration chemotherapy rather than changes to glofitamab administration. |
| **Additional Considerations** | • Fixed duration GemOx | • Fixed duration GemOx<br>• A single dose of obinutuzumab is administered on C1D1, 7 days prior to the first glofitamab dose, for CRS mitigation. |
| **Any Grade Adverse Events (with >25% Incidence)** | Thrombocytopenia (73%), infections (72%), neutropenia (65%), anemia (59%), CRS (52%), diarrhea (47%), nausea (40%), fatigue (35%), hypokalemia (31%), pyrexia (29%), COVID-19 (29%), increased ALT (28%), increased AST (25%), peripheral neuropathy (25%) | Thrombocytopenia (48%), CRS (44%), neutropenia (42%), anemia (41%), nausea (39%), peripheral neuropathy (36%), diarrhea (34%), increased AST (33%), increased ALT (32%) |
| **Grade 3 or > Adverse Events (with >25% Incidence)** | Thrombocytopenia (59%), neutropenia (57%), anemia (43%), infections (29%) | Not reported. |
| **Initial Approval** | Not FDA-approved as of February 2, 2026 | Not FDA-approved as of February 2, 2026 |
| **Pivotal Trial** | EPCORE NHL-2 | STARGLO |

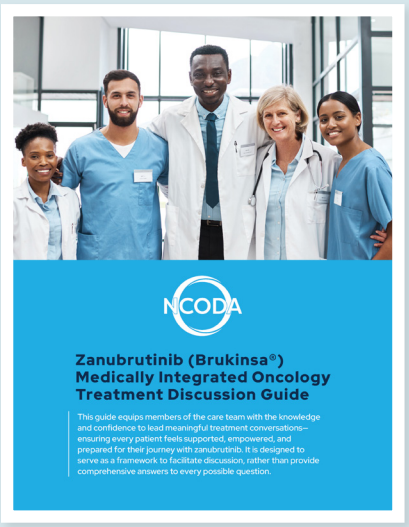
**ABBREVIATIONS:** **ALL:** Acute Lymphoblastic Leukemia; **ALP:** alkaline phosphatase; **ALT:** Alanine Aminotransferase; **AST:** Aspartate Aminotransferase; **BCMA:** B-Cell Maturation Antigen; **BCP:** B-cell Precursor; **BTCE:** Bispecific T-Cell Engager; **CR:** Complete Response; **CrCl:** Creatinine Clearance; **CRS:** Cytokine Release Syndrome; **C:** Cycle; **CD:** Cluster of Differentiation; **D:** Day; **DLBCL:** Diffuse Large B Cell Lymphoma; **DLL3:** Delta-like ligand 3; **ES-SCLC:** Extensive Stage Small Cell Lung Cancer; **FFD:** First full dose; **FL:** Follicular Lymphoma; **G1:** Grade 1; **G2:** Grade 2; **G3:** Grade 3; **G4:** Grade 4; **G5:** Grade 5; **GGT** (gamma-glutamyl transferase), **GPRC5D:** G-protein-coupled receptor, class C, group 5, member D; **HLA:** Human Leukocyte Antigen; **ICANS:** Immune Effector Cell-Associated Neurotoxicity Syndrome; **IQR:** Interquartile Range; **IV:** Intravenous; **LBCL:** Large B-Cell Lymphoma; **MM:** Multiple Myeloma; **MRD:** Minimal Residual Disease; **N/A:** Not applicable; **NS:** Normal Saline; **PR:** Partial Response; **PTT:** Partial Thromboplastin Time; **R/R:** relapsed or refractory; **SC:** Subcutaneous; **SD:** Stable Disease; **VGPR:** Very Good Partial Response; **WBC:** White Blood Cell

## NEW RESOURCE FOR MEMBERS:

# MIP TREATMENT DISCUSSION GUIDES

Effective patient education requires personalized, role-specific guidance to ensure patients fully understand their therapy, treatment goals, and potential challenges. The **NCODA Medically Integrated Oncology Treatment Discussion Guide** provides tailored educational pearls for each member of the medically integrated care team, highlighting their unique contributions to the patient experience.

Our first Treatment Discussion Guide, focused on **zanubrutinib**. We are proud to expand the series with a second guide featuring **nirogacestat.** Together, these resources mark the beginning of a growing library designed to support additional therapies and empower care teams in every aspect of patient-centered oncology.





NCODA's Treatment Discussion Guides are made possible through the strength of our partnerships. By working together, we can continue to create meaningful resources that elevate the role of the medically integrated oncology care team and improve patient outcomes.

Partners interested in learning more about how to support or get involved with this initiative are encouraged to connect with the NCODA Partner Development team at **partnership@ncoda.org** for details.

# NCODA CLINICAL WHITE PAPERS PROVIDE EVIDENCE-INFORMED GUIDANCE FOR PRACTICE

NCODA's Clinical White Papers are evidence-informed resources developed by expert oncology professionals to support high-quality, patient-centered care across a wide range of clinical and operational challenges.

Designed for multidisciplinary oncology teams, these papers translate real-world experience and emerging evidence into actionable strategies that enhance outcomes, refine workflows and support best practices in everyday clinical settings.

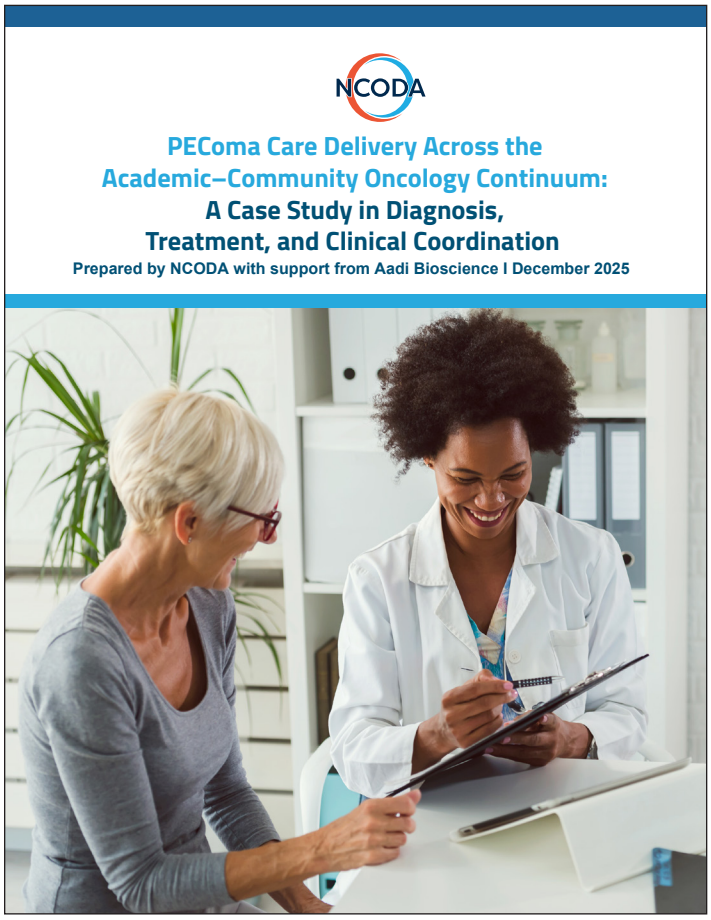
White papers differ from traditional research articles in that they blend clinical insight with practical application. Each paper addresses a specific issue — from rare disease care delivery to treatment decision frameworks and cost-effective strategies — offering both background evidence and practice recommendations.

They help physicians, pharmacists, nurses and administrators bridge the gap between academic advances and clinical implementation, supporting care teams in delivering consistent, informed care.

NCODA curates its white papers to reflect evolving standards of care, emerging treatment paradigms and operational challenges faced by oncology professionals.

Topics may include precision dosing strategies, imaging and therapy innovations, therapy sequencing, or safety testing and implementation considerations.

Authors typically include clinicians and academicians with deep expertise in the subject matter, providing readers with robust, practical content that can be applied in community and academic practice environments.




One of NCODA's latest Clinical White Papers focuses on PEComa Care delivery across the academic community oncology continuum. More pages from the paper can be found on the next page.

## RECENT NCODA CLINICAL WHITE PAPERS

Below are recent white papers available from NCODA's resource library:

▲ **PEComa Care Delivery Across the Academic–Community Oncology Continuum:** This white paper examines the unique diagnostic and treatment challenges presented by perivascular epithelioid cell tumors (PEComas), using perspectives from both academic and community settings to illustrate how care is optimized across diverse practice environments.

▲ **Provider Perspectives on Clinical and Nonclinical Considerations in BTKi Selection:** Bruton tyrosine kinase inhibitors (BTKis) have reshaped B-cell malignancy management. This paper synthesizes a national provider survey to explore how clinical and nonclinical factors influence BTKi selection, highlighting operational realities and decision-making complexities.

▲ **Prostate Cancer: Imaging and Therapy Options from an Oncology Perspective:** Outlining advances in prostate cancer imaging and radiopharmaceutical therapy, this paper highlights practical adoption strategies for PSMA-targeted diagnostics

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# CLINICAL WHITE PAPERS

CONTINUED FROM PREVIOUS PAGE

and therapies like Pluvicto® and Xofigo®, helping practices integrate these innovations into routine care.

▲ **Low-Dose Abiraterone with a Low-Fat Diet in Metastatic Prostate Cancer:** A case series from the Fred Hutchinson Cancer Center explores using low-dose abiraterone taken with a low-fat meal as a cost-effective approach with comparable efficacy and manageable safety, underscoring the potential for diet-adjusted therapy protocols in practice.

▲ **Universal DPYD Testing Prior to 5-FU and Capecitabine Therapy:** This paper outlines the clinical, economic and policy rationale for routine DPYD testing prior to administering Fluorouracil (5-FU) and capecitabine. Evidence shows genotype-guided dosing can prevent severe toxicities and align U.S. practice with international safety standards.

▲ **Redefining Oncology Distribution:** This paper examines the evolving landscape of oncology medication distribution, particularly the role of medically integrated dispensing pharmacies in improving coordinated care, therapy access and operational alignment with clinical decision-making.

For more information about **NCODA Clinical White Papers**, scan the QR code above.

## APPLYING WHITE PAPERS IN PRACTICE

Clinical white papers are more than academic summaries — they are tools practices can use to inform guideline development, shape internal protocols, support education and training, and guide multidisciplinary discussion. They also provide valuable context when evaluating new therapies, refining symptom management approaches or advocating for practice-level changes.

Oncology teams can incorporate insights from these papers into quality improvement initiatives, staff education and patient communication strategies.

For example, a white paper highlighting the importance of genotype-guided dosing may prompt a clinic to adopt DPYD-testing workflows, while imaging and therapy reviews can inform local protocols for integrating new diagnostic technologies.

NCODA's commitment to producing clinically relevant white papers underscores its broader mission to support oncology professionals with resources that are both evidence-based and deeply practical.

Whether your practice is evaluating emerging therapies, optimizing care pathways or addressing rare malignancies, these papers offer timely insight rooted in real-world oncology practice.

ncoda.org

**Introduction**

Perivascular epithelioid cell tumors (PEComas) are a rare and heterogeneous group of mesenchymal neoplasms characterized by the co-expression of melanocytic and smooth muscle markers. These tumors may arise in various anatomic locations including the uterus, retroperitoneum, lung, and gastrointestinal tract. PEComas may present with nonspecific symptoms such as abdominal pain, bleeding, or incidental mass findings.[1,2] PEComas are frequently misdiagnosed or detected late in the disease course due to their rarity and clinical overlap with other soft tissue malignancies like leiomyosarcoma, gastrointestinal stromal tumor (GIST), or renal cell carcinoma.[2]

Historically, treatment options for unresectable or metastatic PEComa were limited to off-label use of oral mTOR inhibitors, which often resulted in variable efficacy and inconsistent tolerability.[2] However, the FDA approval of *nab*-sirolimus (Fyarro®), the first and only approved therapy for malignant PEComa, has reshaped the treatment paradigm.[3] *Nab*-sirolimus offers a targeted approach that improves tumor control and progression-free survival while providing a manageable safety profile.[4]

Because of its rarity, optimal PEComa care requires collaboration across healthcare settings. Academic medical centers play a critical role in establishing the diagnosis through expert pathology and molecular diagnostics, initiating evidence-based therapy, and offering access to clinical trials. Yet, the majority of ongoing cancer care in the U.S. takes place in community settings, where patients receive most of their treatment and follow-up.[5,6] As a result, a shared care model, anchored in communication, continuity, and aligned protocols is essential to ensure that patients with PEComa benefit from cutting-edge science without losing access to local support.

This case study explores the real-world experiences of both an academic sarcoma center and a high-volume community oncology network. It highlights the institutional pathways, treatment decision-making, and coordination mechanisms that have been implemented to optimize PEComa diagnosis, treatment with *nab*-sirolimus, patient support, and long-term outcomes. By examining care delivery from both ends of the referral spectrum, this report provides a comprehensive model for how to operationalize rare tumor care through collaboration, education, and clinical leadership.

**Challenges in Diagnosing PEComa Across Sites of Care**

Diagnosing PEComa is inherently complex due to its rarity, histologic variability, and overlapping clinical features with other more common tumors.[2] These challenges manifest differently in academic and community oncology settings, though both environments face critical diagnostic inflection points that influence patient outcomes.

***1. Diagnostic Complexity at Academic Medical Centers***

At academic institutions, providers are more likely to encounter referrals for second opinions on difficult-to-classify soft tissue tumors. Despite this, PEComa can still elude immediate recognition, particularly in its uterine or retroperitoneal forms, where symptoms are often vague or mimic other gynecologic or abdominal conditions.[7] Patients may present with abnormal bleeding, nonspecific pelvic pain, or incidental mass findings during unrelated imaging studies.

Even in highly specialized settings, diagnosis hinges on expert pathology review. Immunohistochemistry for melanocytic markers (HMB-45, Melan-A) and muscle markers (SMA, desmin) are essential for accurate identification.[1] The academic site highlighted in this case study noted that most of their PEComa cases were originally misdiagnosed as leiomyosarcoma, GIST, or renal cell carcinoma. Only through multidisciplinary tumor board review and high-level pathology collaboration was the correct diagnosis made.

The academic team emphasized the importance of internal communication between departments, particularly gynecologic oncology and sarcoma services, to ensure uterine PEComa cases are appropriately classified and co-managed. Furthermore, they often serve as the "diagnostic endpoint" for patients who had previously seen multiple providers without definitive answers.

> ***"We frequently see second opinions initiated by referring providers, often after pathology was inconclusive or misclassified. Pathology is central to the diagnostic process in PEComa."***
>
> – Academic Medical Center Provider

***2. Diagnostic Gaps in the Community Setting***

In the community oncology environment, providers face the additional challenge of identifying PEComa among a broad and diverse case mix. While large practices may see thousands of cancer cases annually, the appearance of a PEComa diagnosis is rare and often unexpected. As such, it is common for patients to first be treated under the assumption of a more typical soft tissue malignancy.

PEComa Care Delivery Across the Academic–Community Oncology Continuum

Community oncologists typically rely on external referrals from academic centers for the diagnosis of PEComa. These patients arrive with diagnostic workups and treatment plans already in place. However, when the diagnosis originates locally, delays may occur due to limited access to comprehensive molecular testing or a lack of familiarity with the disease.

Community practices may also face practical constraints when pursuing confirmatory diagnostics, such as limited in-house pathology resources or delays in outsourcing biopsies for advanced staining or NGS. These barriers can lead to reliance on empirical treatment approaches that are not tailored to PEComa biology, further underscoring the value of collaboration with academic sarcoma programs.

> ***"We most often see patients with PEComa after they've been diagnosed at a tertiary center. In some cases, we've treated them based on a preliminary diagnosis that later changed after academic pathology review."***
>
> – Community Oncology Provider

***3. Shared Challenges and Points of Convergence***

Both academic and community sites encounter overlapping diagnostic challenges, particularly around:

- Limited clinical suspicion for PEComa due to its rarity
- Overlap in presentation with more common malignancies
- Lack of standardized diagnostic algorithms or screening criteria
- Difficulty in accessing timely and definitive molecular results

As a result, establishing the correct diagnosis of PEComa remains a pivotal moment in the patient journey as it determines treatment eligibility, prognosis, and long-term care strategy. The data gathered from both sites reinforce the critical role of pathology, the value of multidisciplinary review, and the necessity of maintaining strong academic-community referral pathways to expedite diagnosis and avoid inappropriate treatment.

**Treatment Decision-Making and Adoption of *Nab*-sirolimus: Divergent Paths, Aligned Purpose**

Once PEComa is accurately diagnosed, treatment decisions must be made rapidly and thoughtfully, balancing disease aggressiveness with therapeutic efficacy, toxicity profiles, and patient preferences. The approval of *nab*-sirolimus in 2021 marked a significant milestone in PEComa care, offering the first FDA-approved therapy specifically indicated for this rare malignancy.[3] Both academic and community sites now use *nab*-sirolimus, but their paths to adoption and the decision-making frameworks differ in meaningful ways.

***1. Academic Centers: Data-Driven Adoption***

Academic institutions, often at the forefront of clinical trial participation and guideline development, were among the first to adopt *nab*-sirolimus into routine practice. In the highlighted academic sarcoma center, the medical team had been closely following the AMPECT trial results and was prepared to integrate *nab*-sirolimus into clinical pathways as soon as it received FDA approval.

Adoption was facilitated by multidisciplinary tumor boards, institutional protocols, and a culture of rapid knowledge translation. For unresectable or metastatic PEComa, *nab*-sirolimus quickly replaced off-label mTOR inhibitors like sirolimus and everolimus, which had shown inconsistent efficacy and higher toxicity in the real-world setting.[2]

> ***"We transitioned to Fyarro based on both trial data and our early patient experiences. It's more effective, better tolerated, and easier to manage than the oral agents we previously used."***
>
> – Academic Medical Center Provider

Academic teams emphasized the value of *nab*-sirolimus' albumin-bound formulation, which enhances drug delivery and reduces systemic side effects. Side effect profiles are closely tracked using standardized grading systems, and internal supportive care protocols (including dexamethasone mouthwash and proactive fatigue management) were rapidly implemented across departments.

***2. Community Practices: Guided by Expertise, Grounded in Access***

In the community setting, *nab*-sirolimus adoption has been equally important but followed a more consultative path. Community oncologists often initiate treatment based on detailed recommendations from academic partners who made the initial diagnosis. These handoffs include dosing guidelines, toxicity monitoring parameters, and clear escalation pathways should complications arise.

# HONORING VETERANS WITH COMPASSIONATE, COORDINATED CANCER CARE

Veterans face unique challenges when it comes to cancer treatment, from higher rates of exposure-related cancers to complex health histories and barriers to accessing timely care. NCODA is dedicated to supporting our veterans by equipping oncology professionals with the tools, education, and resources needed to deliver patient-centered, high-quality cancer care.

Through NCODA's new Veterans Care web page, you can access a wide variety of resources and pathways to Veteran foundations and government support information.

Join us in advancing care for Veterans.
Learn more and get involved at **ncoda.org/veterans**

**Featured Editorial**

**PATIENT MANAGEMENT IN VETERAN HEALTH**

**Featured Editorial**

**SERVING THOSE WHO SERVED**

Delivering Oncology Care to Veterans

# NCODA VETERAN SUPPORT RESOURCES: SERVING THOSE WHO SERVED OUR COUNTRY

Cancer care for U.S. military veterans presents unique clinical and logistical challenges. Veterans may face higher risks for certain cancers, with health histories that include service-related exposures, post-traumatic stress and barriers to timely, coordinated oncology care.

To support oncology professionals in addressing these needs, NCODA has curated a suite of veteran-focused resources that equip clinicians with insights, education and practical tools for delivering high-quality, patient-centered care to this deserving population.

At the heart of these efforts is an understanding that veteran patients often navigate multiple healthcare systems, including the Veterans Health Administration (VHA) and community practices, and that optimized care requires both clinical expertise and systems-level coordination.

NCODA's Veteran Patient Care Resources act as a central hub where providers can access strategies for communication, treatment planning, psychosocial support, community care navigation, and survivorship planning.

Educational materials highlight the tailored approaches needed for veteran care, including best practices for managing complex health profiles and empowering patients with clear, tailored education.

Resources also address the transition from active treatment to long-term survivorship and survivorship, emphasizing the importance of patient engagement, adherence strategies and whole-health care planning.

NCODA collaborates with key stakeholders both within and outside the VHA system to expand access to clinical trials for veterans. Partnerships with organizations such as the National Association of Veterans' Research and Education Foundations help connect oncology providers and VHA investigators, enabling veterans to participate in cutting-edge research and access emerging therapies while remaining within trusted care networks.

### NCODA VETERAN CARE RESOURCES

A central hub of tools and guides for clinicians caring for veteran patients:

- Veteran Care Resource Sheet
- Quick-reference guidance for community providers navigating VHA coordination and claims.
- Clinical Perspectives & Articles
- Best Practices for Patient Management in Veteran Health
- Serving Those Who Served: Delivering Oncology Care to Veterans
- Opportunity Awaits: Addressing the Unique Needs of Our Nation's Veterans

**Featured Webinars and Podcasts, including:**

- S7 Ep. 16: Improving Oncology Care for Veterans (PQI Podcast)
- Understanding Prostate Cancer in Veterans (Webinar)
- Overview of Advanced Prostate Cancer Management in the VA System (Webinar)

Veteran-focused perspectives and interviews further deepen understanding of care challenges and opportunities. Articles such as **Serving Those Who Served: Delivering Oncology Care to Veterans** and **Best Practices for Patient Management in Veteran Health** offer firsthand insight into the unique operational and clinical dynamics within the VHA and community settings.

NCODA also promotes awareness of advocacy opportunities, encouraging oncology professionals to engage with policymakers to help shape systems that improve timely access to care and bridge gaps between VHA and community oncology practices.

For clinicians seeking to strengthen care for veteran patients, NCODA's veteran resources provide practical, multidisciplinary guidance that respects the experiences of those who served while enhancing clinical outcomes and patient experience.

For a directory of NCODA Veteran Services, go to **www.ncoda.org/veterans**.

# NCODA EDUCATIONAL VIDEOS: PRACTICAL LEARNING TOOLS FOR CLINICAL TEAMS

NCODA's educational videos provide oncology professionals with concise, practical visual guidance that can be applied directly to patient care.

Designed for multidisciplinary teams, these videos address dosing considerations, dose modifications, adverse event management, treatment surveillance, adherence strategies and clinical "pearls" that support safe, coordinated cancer treatment delivery.

Unlike traditional long-form webinars, NCODA's videos deliver focused, topic-specific insights that fit into busy clinical workflows. They are particularly useful for pharmacy staff, nurses and advanced practice providers seeking quick refreshers on specific therapies, reinforcement of best practices or onboarding to standardized procedures.

The videos are available through NCODA's online resource library and can be accessed on demand. Featured content highlights recent additions, while the broader collection allows users to sort by most recent or by topic. Many videos include clinical context and expert commentary.

## HOW TEAMS USE EDUCATIONAL VIDEOS

Clinical teams use the videos for:

▲ Staff training and orientation: Standardizing knowledge on therapies and processes.

▲ Just-in-time learning: Preparing for new regimens or complex cases.

▲ Continuing education support: Reinforcing key practices alongside webinars and other training.

▲ Infusion team preparation: Reviewing setup and administration steps.


## SELECT EDUCATIONAL VIDEOS

Below is a listing of several educational videos available from NCODA's library:

▲ **Akynzeo® (Ready-to-Use Vial):** A Step-by-Step Video Guide — Practical tips for administering the ready-to-use infusion vial, including tubing setup and pump programming.

▲ **BRUKINSA® (Zanubrutinib) for Relapsed or Refractory Marginal Zone Lymphoma** — Clinical and pharmacy considerations for this targeted therapy.

▲ **BRUKINSA® (Zanubrutinib) for Chronic Lymphocytic Leukemia or Small Lymphocytic Lymphoma** — Practical clinical insights.

▲ **BRUKINSA® (Zanubrutinib) for Waldenstrom's Macroglobulinemia** — Application guidance for this indication.

▲ **BRUKINSA® (Zanubrutinib) for Mantle Cell Lymphoma** — Handling, patient education and adherence considerations.

▲ **Ibrutinib-Related Cardiac Toxicities: Management & Dose Modifications** — Recognition and management of cardiovascular side effects.

▲ **Neratinib for Extended Adjuvant Treatment of Early-Stage HER2-Positive Breast Cancer (MIP)** — Expert discussion on therapy benefits and side effect strategies.

▲ **Tukysa® (tucatinib) Educational Series** — Disease overview, dosing and side effect guidance.

## EXPANDING ON-DEMAND LEARNING

NCODA's video library complements webinars, PQIs and other treatment resources. Because the videos are searchable and available on demand, teams can incorporate them into training, case reviews or quality improvement initiatives. They also serve as consistent references when updating procedures or preparing for new therapy rollouts.

Whether preparing for a complex infusion, refining toxicity management or aligning on oral oncolytic best practices, NCODA's educational videos provide efficient, clinically grounded support for patient-centered oncology care.

# NCODA'S ORAL ONCOLYTIC CRUSH/SUSPENSION DIRECTORY: PRACTICAL ADMINISTRATION SUPPORT

The NCODA Oral Oncolytic Crush/Suspension Directory is a clinical reference designed to help oncology teams quickly locate information on crush and suspension options for oral anticancer medications.

Swallowing difficulties are common among patients with cancer, and crushing tablets or creating a liquid suspension can be necessary for safe and effective administration in select clinical situations.

Busy clinicians often face challenges finding reliable guidance on how and when a medication can be altered for administration. The Crush/Suspension Directory consolidates current data into a single, searchable resource, giving pharmacists, nurses and advanced practice providers easy access to evidence-informed references that support individualized care planning.

Available through NCODA's online clinical resource library, the tool streamlines access to crushing and suspension guidance that might otherwise require extensive independent searching. While the directory does not cover all medications and is not a substitute for professional judgment, it helps oncology professionals make informed decisions when standard oral administration is not feasible.

A short portion of the directory is shown below. To view the full directory, go to **www.ncoda.org/crush-directory**.

| Generic | Brand | Crush | Suspension | Reference |
|---|---|---|---|---|
| **Abemaciclib** | Verzenio® | No Data | • Crush tablet, disperse in at least 10 mL of water.<br>• Administer completely and immediately within 10 minutes of dispersion. | Cohen J, Lee C, Markham R, Szerwo J, Roska M, Bubalo J. Medication use process and assessment of extemporaneous compounding and alternative routes of administration of oral oncology drugs: Guidance for clinical and oncology pharmacists. J Am Coll Clin Pharm. 2022; 5( 11): 1176- 1228. doi:10.1002/jac5.1698. |
| **Abiraterone Acetate** | Zytiga® | No Data | No Data | Cohen J, Lee C, Markham R, Szerwo J, Roska M, Bubalo J. Medication use process and assessment of extemporaneous compounding and alternative routes of administration of oral oncology drugs: Guidance for clinical and oncology pharmacists. J Am Coll Clin Pharm. 2022; 5( 11): 1176- 1228. doi:10.1002/jac5.1698. |
| **Acalabrutinib** | Calquence® | No Data | Tablet is dissolved in regular uncarbonated Coca-Cola. | Sharma S, Pepin X, Cheung J, et al. Bioavailability of acalabrutinib suspension delivered via nasogastric tube in the presence or absence of a proton pump inhibitor in healthy subjects. Br J Clin Pharmacol. 2022;88(10):4573-4584.doi:10.1111/bcp.15362. |
| **Anastrozole** | Arimidex® | No Data | • Place the tablet in barrel of an appropiate size and type of syringe.<br>• Draw 10 mL of water into the syringe and allow the tablet to disperse, shaking if necessary.<br>• May administer via feeding tube. | Cohen J, Lee C, Markham R, Szerwo J, Roska M, Bubalo J. Medication use process and assessment of extemporaneous compounding and alternative routes of administration of oral oncology drugs: Guidance for clinical and oncology pharmacists. J Am Coll Clin Pharm. 2022; 5( 11): 1176- 1228. doi:10.1002/jac5.1698. |
| **Alectinib** | Alecensa® | No Data | • Empty the contents of two 150 mg alectinib capsules (300 mg) and dissolve in 40 mL pharmaceutical-grade olive oil to produce 7.5 mg/mL suspension.<br>• Administer via PEG tube, followed by 30 ml flush of tube feeding.<br>• A conservative expiration date of seven days. | Anderson, B. E., Luczak, T. S., Ries, L. M., Hoefs, G. E., & Silva-Benedict, A. C. (2020). Successful alectinib desensitization in a patient with anaplastic lymphoma kinase-positive adenocarcinoma of the lung and alectinib-induced drug rash. Journal of Oncology Pharmacy Practice, 26(8), 2028-2030. |

# ORAL ANTICANCER MEDICATION COMPASS: SUPPORTING TEAM-BASED OAM CARE

Delivering high-quality, patient-centered care to people taking oral anticancer medications (OAMs) requires more than prescribing the right drug. It demands coordinated workflows, effective patient education, standardized monitoring and clear interprofessional communication.

To help practices navigate these complexities, NCODA — in collaboration with the Oncology Nursing Society (ONS) — developed the Oral Anticancer Medication Care Compass, a tool kit designed to support interprofessional navigation of oral therapy care pathways.

Oral therapies have transformed cancer treatment, offering convenience and expanded options. They have also introduce challenges. Patients must understand dosing, monitor and report side effects, adhere to complex schedules and coordinate care across disciplines.

Without clear processes and shared tools, gaps in communication and follow-up can contribute to adverse events and reduced treatment effectiveness. The Care Compass addresses these risks by providing structured, evidence-based tools that promote consistency, teamwork and patient safety.

## BUILT FOR REAL-WORLD USE

Developed jointly by NCODA and ONS, with input from pharmacists, nurses and other subject matter experts, the Care Compass is built for real-world use. It offers practical resources to assess current care processes, strengthen workflows, enhance patient education and improve outcomes through standardized practice. These tools are designed to be adaptable across practice settings, allowing teams to tailor workflows while maintaining consistent quality standards.

By aligning documentation, follow-up intervals and toxicity assessment practices, the Care Compass helps reduce variation and reinforce accountability across the care continuum. Seamless oral anticancer care depends on collaboration among pharmacy staff, clinicians, nurses, navigators and administrative teams — and the tool kit reinforces that shared responsibility.

At its core, the Care Compass supports practice assessment, patient education, toxicity oversight and adherence planning. It helps teams identify gaps, streamline transitions and align standards across settings.

Because oral therapies shift more monitoring responsibility to patients and caregivers, the Care Compass reinforces accountability and provides checkpoints that keep teams coordinated throughout treatment.

## WHY THE CARE COMPASS MATTERS

The shift to oral anticancer therapies underscores the need for clearly defined interprofessional roles supported by shared tools. The Care Compass enables practices to:

- Identify workflow gaps and engage teams in quality improvement.
- Standardize patient education and consent procedures.
- Implement toxicity assessment tools to detect and manage side effects early.
- Support adherence monitoring and reinforce treatment persistence.

### THE ORAL ANTICANCER MEDICATION CARE COMPASS TOOL KIT INCLUDES:

- **OAM Workflow Analysis PQI** — A structured guide to assess and optimize current oral therapy processes.
- **PQI Supplement: OAM Workflow Analysis Tool** — A practice tool developed to assess workflow gaps and to recommend improvements.
- **OAM Patient & Caregiver Education Resources** — Education guides and checklists to support communication and understanding throughout oral therapy care.
- **Assessment and Grading of Common OAM Toxicities** — A comprehensive list of common adverse events (AEs) associated with oral therapies, links to toxicity grading resources and an interactive activity for clinicians to test their knowledge in grading AEs.
- **Specialty Pharmacy and Patient Assistance Contact Directory** — Helps clinicians organize specialty pharmacy and patient assistance program contact information in one accessible resource.
- **The OAM Adherence Blueprint:** Provides the latest validated scales and strategies to assess and optimize patient adherence.

For more information on the **Oral Anticancer Medication Compass**, scan the QR code above.

# NCODA Cost Avoidance & Waste Tracker

The NCODA Cost Avoidance & Waste Tracker is an online tool created to help practices document the great work they are doing saving money for patients, and showcasing the waste produced by outside vendors.

## How it works:

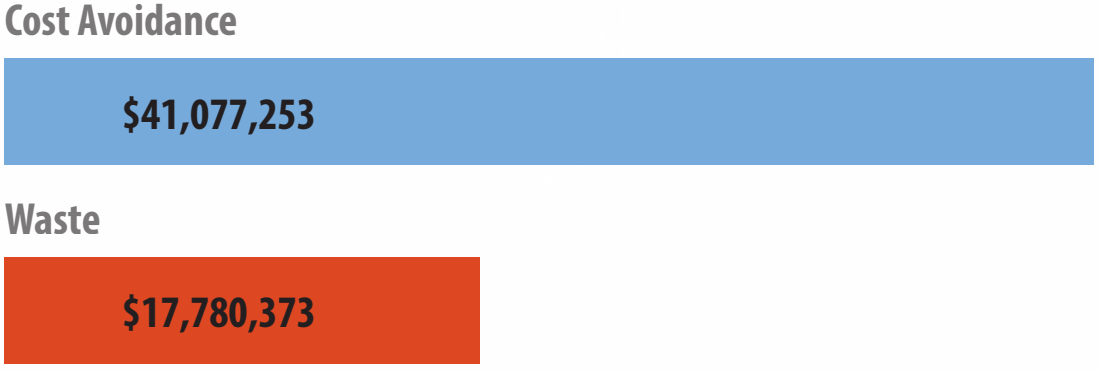
Cost Avoidance: When you intervene to prevent an unnecessary prescription, ***record the savings***.

Waste: When the patient brings in medication that was not used at all, ***record the wasted expense***.

## How to use the data:

Share the information with your administration, payers, employers, and other relevant stakeholders to showcase the benefits of your practice over alternative services.

## Cost Avoidance & Waste Reported *To Date* by NCODA Members




*Numbers as of March 2026

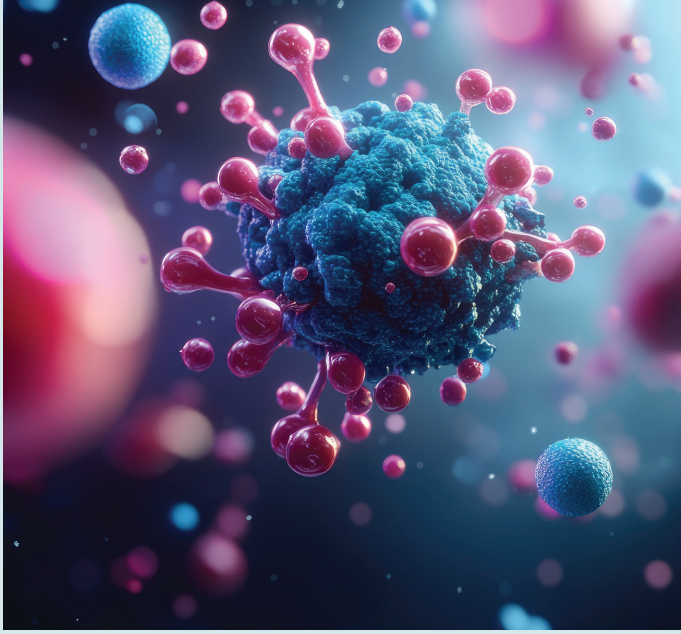
## *Help Us Create Change and Accountability for Healthcare Spending Nationwide!*

To learn more about the tracker tool, please visit **ncoda.org/CAWT**

NCODA

# IMMUNOTHERAPY HUB

## Implement Bispecific Therapies with Confidence & Clarity



The NCODA Immunotherapy Hub is your go-to source for everything related to bispecific T-cell engagers (BTCEs) — whether you're taking your first steps or you're refining advanced clinical workflows. Dive into curated, practice-ready content including foundational overviews, agent-specific insights, and downloadable SOPs from real practices.

Designed for oncologists, pharmacists, nurses, and care teams in community, and academic settings alike, the Hub equips you to navigate dosing schedules, understand REMS requirements, manage adverse reactions like CRS and neurotoxicity, and adapt procedures that truly fit your practice environment.

Visit NCODA.org/Immunotherapy-Hub to access your immunotherapy roadmap now.
**Empower your team. Elevate patient care.**

# Copay Accumulators

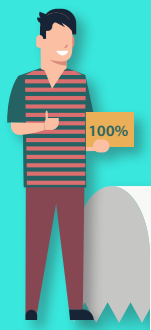
## what to know & what's the difference?

## Without accumulator programs

Patients with certain types of insurance can use manufacturer coupon cards to cover copays


Your Deductible

The patient's manufacturer coupon card helps to meet their deductible requirement




Once the deductible has been met, insurance begins to provide maximum coverage

**RECEIPT**

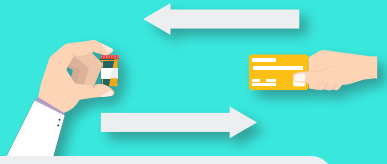
| | |
|---|---|
| Prescription Drug Cost | $2,000.00 |
| *Manufacturer Coupon Value* | -$1,995.00 |
| Your Total at the Counter | $5.00 |

$2,000.00
Annual Deductible

$0.00
Remaining Deductible After Coupon*

*$2,000.00 = $5.00 paid by patient
$1,995.00 coupon

## With accumulator programs



Patients can still use their coupon cards, but ...


Your Deductible

With the accumulator program, the amount paid by your coupon card would no longer count toward helping to meet your deductible

You, as the patient, will still need to pay all the money left over to reach your deductible

**RECEIPT**

| | |
|---|---|
| Prescription Drug Cost | $2,000.00 |
| *Manufacturer Coupon Value* | -$1,995.00 |
| Your Total at the Counter | $5.00 |

$2,000.00
Annual Deductible

$1,995.00
Remaining Deductible After Coupon*

*Only $5.00 counts toward the patient's deductible and health insurers keep the $1,995.00 coupon!

# VS.

**An example of what happens at the pharmacy counter**

NCODA

**Scan QR Code To View Which States Have Active Legislation Or Enacted Laws Regarding Copay Accumulators**

NCODA Resource Guide

# Professional Development



# PROFESSIONAL DEVELOPMENT: BUILDING EXPERTISE ACROSS THE ONCOLOGY CARE TEAM

As oncology care grows more complex, the need for structured, accessible and practical professional development has never been greater. NCODA's Professional Development programs equip multidisciplinary oncology teams — including pharmacists, technicians, advanced practice providers, nurses and other oncology professionals —with the clinical knowledge, operational insight and leadership skills necessary to deliver high-quality, patient-centered cancer care.

From foundational education to accredited continuing education, fellowships and student engagement, NCODA offers learning pathways that support professionals at every stage of their careers.

## A SOLID FOUNDATION: THE ONCOLOGY BASICS COURSE

At the core of NCODA's portfolio is the Oncology Basics Course, a comprehensive, self-paced program designed to strengthen foundational oncology knowledge.

Developed for pharmacy students, residents, fellows and clinicians transitioning into oncology practice, the course provides approximately 15 hours of targeted instruction focused on real-world application. It covers:

- **Core principles of oncology pharmacotherapy;**
- **Mechanisms of action of cytotoxic agents, targeted therapies and immunotherapies;**
- **Therapy selection frameworks for hematologic and solid tumor malignancies;**
- **Common toxicity profiles and management strategies; and**
- **Patient monitoring and safety considerations across the treatment continuum.**

NCODA is actively expanding Continuing Education (CE) offerings to serve advanced practice providers,, nurses and other oncology professionals as part of its commitment to team-based oncology care.

Rather than emphasizing abstract theory, the Oncology Basics Course centers on clinical context and practical decision-making. Learners gain confidence in understanding how therapies work, why regimens are selected and how adverse effects are anticipated and managed in everyday practice. The course bridges the gap between academic training and the realities of medically integrated oncology care.

## CONTINUING EDUCATION THAT FITS CLINICAL PRACTICE

Beyond foundational learning, NCODA offers accredited continuing education programs tailored to the needs of busy oncology professionals. Live and on-demand activities address emerging therapies, operational innovation, reimbursement considerations, quality initiatives and clinical nuance.

As an Accreditation Council for Pharmacy Education (ACPE)–accredited provider, NCODA enables pharmacy professionals to earn CE credits while staying current with evolving standards of care. Programs frequently incorporate case-based discussion and frontline perspectives, reinforcing NCODA's focus on practical, clinically relevant education.

## MENTORSHIP, FELLOWSHIPS AND STUDENT ENGAGEMENT

Professional growth also extends beyond formal coursework. NCODA's mentorship initiatives connect early-career professionals and students with experienced oncology leaders, fostering guidance, professional development, and knowledge exchange.

The NCODA Fellowship Program provides Doctor of Pharmacy graduates with immersive experience in medically integrated oncology practice. Fellows engage in clinical initiatives, research projects, content development and national engagement efforts that influence oncology care delivery.

For students, NCODA's Professional Student Organization (PSO) and PSO chapters offer leadership development, project participation and exposure to multidisciplinary oncology practice. These initiatives create meaningful entry points into oncology and help cultivate the next generation of oncology professionals.

## SUPPORTING CAREER ADVANCEMENT

NCODA's Career Share platform further supports professional advancement by connecting members with career opportunities across the oncology ecosystem. By aligning talent with medically integrated oncology practices, the organization strengthens workforce development while supporting high-quality patient care.

Across all professional development offerings, NCODA emphasizes collaboration, practical implementation and clinical excellence. Whether strengthening foundational knowledge through the Oncology Basics Course, earning continuing education credit, engaging in mentorship or participating in fellowship training, oncology professionals have access to resources that support lifelong learning.

Learn more about available programs at **NCODA.org/professional-development**.

NCODA members attend a live continuing education session at a previous NCODA International Fall Summit.

# CONTINUING EDUCATION: PRACTICAL LEARNING FOR THE MODERN ONCOLOGY PRACTICE

In oncology, continuing education is not optional — it is essential for safe, coordinated and sustainable cancer care. The pace of therapeutic innovation, the expansion of biomarker-driven treatment decisions, evolving reimbursement models and increasing operational complexities demand that oncology professionals engage in lifelong learning.

NCODA's continuing education (CE) program is built around that reality. Designed for multidisciplinary oncology teams, NCODA CE offerings provide clinically relevant, practice-ready education that supports pharmacists, pharmacy technicians, nurses and other oncology professionals in delivering safe, effective and coordinated care.

## A FRAMEWORK FOR REAL-WORLD ONCOLOGY

NCODA is accredited by the Accreditation Council for Pharmacy Education (ACPE) to provide continuing pharmacy education for pharmacists and pharmacy technicians. Through partnerships for joint accreditation, additional CE activities may offer credits for nurses and other professionals, depending on the program.

Rather than presenting abstract academic content, NCODA CE activities are structured around real-world oncology practice. Topics frequently address:

- Emerging targeted and immunotherapy agents;
- Toxicity recognition and management;
- Oral anticancer medication navigation;
- Operational workflow improvement;
- Social Determinants of Health and health equity;
- Reimbursement and policy considerations; and
- Specialty pharmacy integration and dispensing models.

Educational programming reflects the multidisciplinary nature of medically integrated oncology practices. Pharmacists, advanced practice providers, nurses and operational leaders contribute to and participate in CE

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# CONTINUING EDUCATION

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programming, reinforcing team-based care principles.

### MULTIPLE FORMATS AVAILABLE

NCODA CE activities are delivered in several formats to accommodate busy clinical schedules:

▲ **Live Webinars:** Regularly scheduled educational webinars address timely clinical and operational topics. Participants can attend live sessions, engage with presenters and complete required post-activity components to claim credits.

▲ **On-Demand CE:** Archived webinar recordings and other educational modules (such as written CE articles and CE podcasts) are available through NCODA's CE webpage. These allow learners to access content at their convenience while still earning CE credits upon completion of activity requirements.

▲ **Summit and Forum CE:** Educational sessions offered during NCODA's Spring Forum and Fall Summit provide in-person and virtual learning opportunities, many of which are approved for CE credits. These programs often focus on cutting-edge clinical developments, quality initiatives and collaborative practice models.

Recent CE examples reflect both clinical advancement and operational complexity, including therapeutic updates on newly approved agents, disease-state deep dives such as HER2-positive breast cancer, analyses of CAR-T therapy resource utilization and cost considerations, and precision oncology topics such as pharmacogenomics and tumor-agnostic treatment approvals. By offering both live and on-demand access, NCODA ensures that education remains accessible and adaptable to varying practice environments.

For more information about the **NCODA's Continuing Education program**, scan the QR code above.

### EARNING AND CLAIMING CE CREDITS

NCODA's CE activities follow structured accreditation standards to ensure educational integrity and transparency.

To earn CE credits, participants must:

▲ Register for the activity through NCODA's CE portal (LecturePanda);

▲ Participate in the live session or complete the on-demand seesion recording in its entirety;

▲ Complete any required pre/post-assessment and activity evaluation; and

▲ Submit the CE code for the respective CE activity (disclosed toward the end of CE presentation).

Once these steps are completed, CE credits are processed according to accreditation guidelines. For ACPE-accredited activities, participants must provide the appropriate NABP e-Profile ID, and month and day of birth information to ensure credits are properly transmitted to the CPE Monitor.

Certificates of completion are typically available for download after successful completion of all activity requirements. Participants are encouraged to retain documentation consistent with professional licensure requirements.

This structured process ensures compliance with accreditation standards while maintaining ease of access for learners.

### EDUCATION THAT STRENGTHENS PRACTICE

NCODA CE is designed to fulfill licensure requirements and to directly strengthen oncology practice.

Teams frequently use CE programming to:

▲ Support onboarding of new pharmacists, nurses and technicians;

▲ Standardize toxicity management approaches;

▲ Prepare for implementation of new therapies;

▲ Reinforce oral therapy navigation workflows; and

▲ Align quality improvement initiatives with evolving standards.

Because the programming is grounded in medically integrated oncology practice, the education is practical, actionable and immediately applicable.

## WHAT IS NCODA CONTINUING EDUCATION?

NCODA CE consists of accredited educational activities designed for oncology pharmacists, pharmacy technicians and, in select cases, nurses and other professionals. Programming focuses on clinical updates, operational strategies and multidisciplinary oncology care.

### WHO CAN PARTICIPATE?

Most CE activities are open to NCODA members and eligible healthcare professionals. Specific eligibility and credit types are outlined within each activity description.

### HOW DO I EARN CE CREDITS?

Participants must register through the NCODA CE portal, complete the live or on-demand activity, pass any required pre/post-assessment and submit an evaluation. For ACPE-accredited activities, learners must provide their NABP e-Profile ID for credit reporting.

### HOW ARE CREDITS REPORTED?

ACPE credits are transmitted to CPE Monitor following successful completion. Certificates of completion are typically available for download within the CE platform.

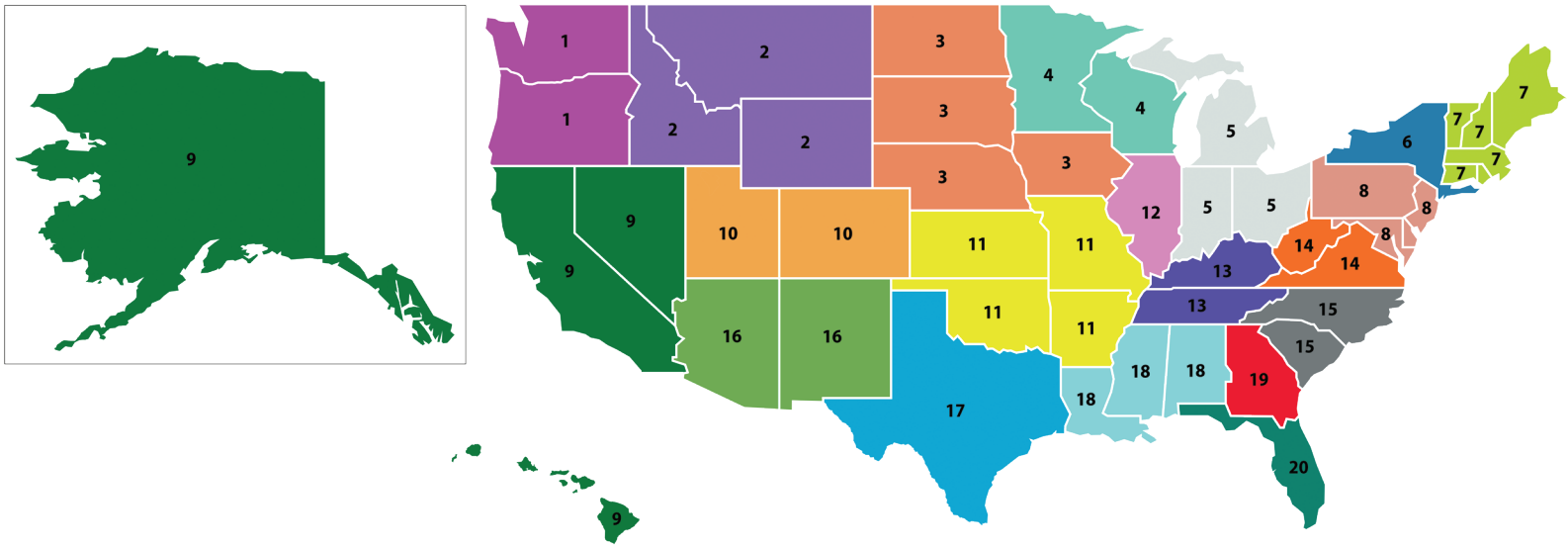
### ARE ON-DEMAND ACTIVITIES ACCREDITED?

Many archived webinars and modules offer CE credits, provided all activity requirements are completed within the stated accreditation window.

### WHERE CAN I ACCESS NCODA CE PROGRAMS?

Current and archived CE activities are available at **NCODA.org/ce**.

# NCODA REGIONAL LEADERS: STRENGTHENING THE LOCAL CONNECTION ACROSS A NATIONAL NETWORK




NCODA's Regional Leaders program extends the organization's national mission into local oncology practice environments across the United States. Structured by geographic regions, the program designates oncology professionals to serve as ambassadors, peer resources and points of contact within their respective states.

The regional model reflects NCODA's commitment to medically integrated, multidisciplinary cancer care. Each region includes representation from key roles within oncology practices — advanced practice providers, pharmacists, pharmacy technicians, nurses and other clinical leaders — ensuring engagement is grounded in real-world experience. This structure supports balanced perspectives and reinforces the team-based approach that defines contemporary oncology practice.

By aligning leadership geographically, NCODA fosters connection among professionals who share similar regulatory environments, payer landscapes and operational challenges. Regional leaders strengthen communication between members and the national organization, promote participation in educational initiatives and collaborative projects, and encourage engagement in forums, summits and national programming. Their presence helps maintain year-round connection beyond major meetings or virtual events.

**NCODA'S Regional Leaders program creates a practical avenue for peer-to-peer collaboration across diverse practice settings.**

The program also creates a practical avenue for peer-to-peer collaboration across diverse practice settings, from academic medical centers to community-based clinics and specialty pharmacy operations. Regional leaders facilitate dialogue among professionals navigating comparable operational realities, creating space for the exchange of best practices, workflow innovations and clinical insights that may be uniquely relevant within a given region.

In addition to serving as connectors, regional leaders help identify emerging trends, barriers and educational needs within their areas. This feedback informs broader organizational priorities and helps ensure that national strategies remain responsive to the realities of oncology practice across varied settings.

Ultimately, the Regional Leaders program reinforces NCODA's mission to strengthen medically integrated oncology practices through collaboration, education and shared expertise — amplifying national

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# REGIONAL LEADERS

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impact through meaningful regional connection and sustained peer engagement.

A full list of NCODA Regional Leaders by region follows (For an online list with clickable emails, go to **www.ncoda.org/regional-leaders**):

### REGION 1 — WASHINGTON, OREGON

**Andrew Ruplin**, PharmD
Fred Hutchinson Cancer Center
andrewruplin.pharmacy@gmail.com

**Ashley Kohler-Gerber**, CPhT, CSPT, HDDP
American Oncology Network
amgerber89@gmail.com

**Jennifer Lewellyn**, RN
Asante,
Jennifer.Lewellyn@asante.org

**Dwight C. Macero**, MS, PA-C
Fred Hutch Cancer Center
dmacero@fredhutch.org

### REGION 2 — IDAHO, WYOMING, MONTANA

**Heidi Gay**, CPhT
Rocky Mountain Oncology
hgay@rockymountainoncology.com

**Julia Kerr**, PharmD,
St. Luke's Cancer Institute
Kerrju@slhs.org

### REGION 3 — N. DAKOTA, S. DAKOTA, NEBRASKA, IOWA

**Jennifer Hasiak**, PharmD, RPh
Hematology & Oncology Consultants
jhasiak@hocdocs.com

**Andrea Nelson**, CPhT,
Nebraska Cancer Specialists
ajnelson@nebraskacancer.com

### REGION 4 — MINNESOTA, WISCONSIN

**Jennifer Dix**, CPhT
US Oncology
Jennifer.Dix@usoncology.com

**Naomie Freyholtz**, RN
Olivia Hospital and Clinic
Naomi.M.Freyholtz@HealthPartners.com

**Molly Schmidt**, PharmD, BCOP, BCPS, CSP
Maine Health
Molly.Schmidt@mainehealth.org

### REGION 5 — MICHIGAN, INDIANA, OHIO

**Jelena Dimoska**, PharmD, MS, BCPS
Karmanos Specialty Pharmacy
dimoskaj@karmanos.org

### REGION 6 — NEW YORK

**Michelle Phillips**, PharmD, BCOP
University of Rochester Medical Center, Specialty Pharmacy
michelle_Phillips@urmc.rochester.edu

**Leslie Hurley**, RN
New York Oncology Hematology
leslie.hurley@nyoh.com

**Priscilla Lam**, PA-C
Memorial Sloan Kettering Cancer Institute
priscillalam619@gmail.com

**Sloan Stevens**, CPhT
University of Rochester Medical Center, Specialty Pharmacy
sloan_stevens@urmc.rochester.edu

### REGION 7 — CONNECTICUT, MAINE, MASSACHUSETTS, NEW HAMPSHIRE, RHODE ISLAND, VERMONT

**Christine Cronin**, CPhT, COPhT
Mass General Bringham
Specialty rootycc@comcast.net

**Gillian Milton**, RN
Dana Farber
GillianC_Milton@dfci.harvard.edu

**Julia Schwechheimer**, PharmD, BCOP
Maine Health
julia.schwechheimer@mainehealth.org

### REGION 8 —PENNSYLVANIA, NEW JERSEY, MARYLAND, DC, DELAWARE

**David Borrone**, RPh
AtlantiCare Cancer Care Institute
DBorrone@atlanticare.org

**Sara Rentzel,** CPhT
American Oncology Network
Sara.Rentzel@aoncology.com

**Caprina Tomlinson**, RN
RWJ Barnabas Health
caprina.tomlinson@rwjbh.org

### REGION 9 — CALIFORNIA , ALASKA, HAWAII

**Aaron Ginsberg**, PharmD
Scripps Health
ginsberg.aaron@scrippshealth.org

**Jennifer Berni**, CPhT
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# NCODA COMMUNITIES: ADVANCING MULTIDISCIPLINARY ONCOLOGY PRACTICE

NCODA Communities reflect how oncology care actually happens — as a coordinated, team-based effort across disciplines and practice settings.

Advanced practice providers (APPs), nurse practitioners, and physician assistants represent NCODA's newest professional community. Over the past several years, APP engagement has steadily grown, and NCODA is now further expanding its focus on this community — increasing visibility, strengthening connections and opportunities for APPs across the oncology care continuum.

Supporting this growth is **Corinne Shamehdi**, PA-C, Associate Director of Membership & Professional Development, who will lead the growing APP community while overseeing NCODA's broader Communities portfolio. Working alongside her are Membership & Professional Development leaders across professional groups:

- **Natasha Olson**, PharmD, Senior Manager of Pharmacist Membership & Professional Development;
- **Mary K. Anderson**, BSN, RN, OCN, Senior Manager of Nursing Membership & Professional Development;
- **Taryn Newsome**, CPHT, Associate Manager of Membership & Professional Development — Pharmacy Technicians; and
- **Mustafa Abacioglu**, MPharm, Manager of Membership & Professional Development — Students | Residents | Fellows.

Pharmacists, nurses, pharmacy technicians and prescribers — including physicians and APPs— carry distinct responsibilities, but they share the goal of delivering high-quality, patient-centered care in increasingly complex clinical and operational environments. Rather than operating in silos, NCODA organizes engagement by professional role while keeping the larger team in view.

Members connect with peers who understand evolving therapies, payer-pressures, regulatory requirements and workflow demands that shape oncology practice, fostering practical dialogue and shared problem-solving that translate directly into local practice improvement.

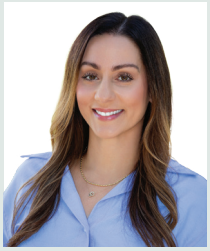
## ADVANCED PRACTICE PROVIDERS

APPs play a central role in patient evaluation, treatment management, toxicity monitoring, patient education and care coordination, and often manage their own patient panels. Positioned at the intersection of clinical decision-making and care delivery, APPs serve as a consistent clinical touchpoint for patients while advancing quality, efficiency and access while helping close care gaps driven by oncology workforce shortages.

APPs also frequently serve as sub-investigators on clinical trials, giving them early familiarity with emerging therapies as they enter clinical practice. This frontline insight strengthens NCODA initiatives such as Positive Quality Interventions (PQIs), PQI in Action and Patient Education Sheets (PES) helping translate new treatment knowledge into practical care delivery strategies across oncology practices.

Through this community, APPs connect with colleagues navigating similar clinical, reimbursement and workflow challenges. Engagement offers opportunities for education, peer dialogue and leadership involvement within NCODA.

APPs also contribute valuable clinical insight to conversations around quality improvement, patient access and care delivery within oncology practices. By engaging within NCODA, APPs see how clinical decisions intersect with reimbursement models, quality initiatives and access strategies — reinforcing their influence both at the point of care and within the broader oncology practice framework.



Meet our APP Community Lead: **Corinne Shamehdi**, PA-C, Associate Director of Membership & Professional Development | NCODA.

Learn more about NCODA's APP Community at **ncoda.org/advanced-practice-providers**.

# NCODA COMMUNITIES: ONCOLOGY PHARMACISTS

## Driving clinical quality, operational leadership and the foundation of medically integrated oncology practice

Pharmacists take part in a meet and greet at the 2025 NCODA International Fall Summit in Orlando, Florida.

Oncology pharmacy is where NCODA began — and pharmacists remain central to the organization's identity and mission. From clinical decision support to operational oversight, oncology pharmacists play a critical role in ensuring that complex therapies are delivered safely, efficiently and in alignment with quality standards.

Within medically integrated oncology practices, pharmacists serve as a bridge between prescribing decisions, reimbursement realities and patient access considerations. They navigate evolving treatment guidelines, prior authorization requirements, drug procurement challenges and quality reporting expectations — while maintaining focus on patient outcomes. Their work extends beyond medication verification to stewardship of therapeutic strategy, oversight of dispensing operations and coordination across care teams.

NCODA's oncology pharmacist community reflects these layered responsibilities. It creates space for dialogue that connects clinical expertise with operational execution. Members engage with peers who understand the pressures of specialty drug management, value-based initiatives and regulatory compliance — conversations grounded in practical experience.

Through structured engagement, oncology pharmacists collaborate on workflow optimization, access strategies, quality initiatives and implementation of emerging therapies. By connecting professionals facing similar payer landscapes and operational demands, NCODA supports problem-solving that translates into measurable local improvement.

In addition to peer collaboration, pharmacists engage with key NCODA initiatives and professional supports, including:

- **Positive Quality Interventions (PQIs)** — Data-driven tools demonstrating the value of oncology pharmacy services and improving patient outcomes.
- **Medically Integrated Dispensing Pharmacy (MIP) Standards** — A framework supporting safe, efficient and compliant dispensing within oncology practices.
- **Treatment Support Kits (TSKs)** — Structured resources that promote consistent, patient-centered therapy management.
- **NCODA CONNECT: Pharmacist Community** — A platform for discussion and role-specific collaboration.
- **Educational Webinars and Continuing Education** — Ongoing learning focused on clinical updates and operational strategy.
- **Professional Development Opportunities** — Pathways supporting leadership growth within oncology pharmacy.
- **Support Your Pharmacy Practice Resources** — Practical tools tailored to operational needs.
- **Pharmacist Meet and Greets** — Provide an opportunity for pharmacists from across the world to gather in an informal setting to meet with their peers, share best practices and ask questions in a relaxed setting prior to the start of an NCODA conference.

Pharmacists also play a leadership role within the broader NCODA framework. Their insights inform organizational priorities and national initiatives designed to strengthen medically integrated oncology care. In many settings, they lead efforts related to quality metrics, clinical pathways, cost stewardship and policy response.

Meet our Oncology Pharmacist Community Lead: **Natasha Olson**, PharmD, Senior Manager of Pharmacist Membership & Professional Development | NCODA.

Across academic medical centers, community oncology clinics and specialty pharmacy operations, oncology pharmacists shape how care is delivered and sustained. As the oncology landscape evolves, NCODA provides a structured environment that keeps pharmacists connected and engaged — reinforcing the profession's influence while strengthening the practices it serves.

Pharmacists interested in deeper engagement may connect with NCODA leadership at **ncoda.org/pharmacists**.

Nurses gather for a photo opportunity during the Nursing Community Meet & Greet at the 2025 NCODA International Spring Forum in Denver.

# NCODA COMMUNITIES: ONCOLOGY NURSES

## Empowering one another and elevating care in a calling unlike any other

Oncology nursing is not just a specialty. It is a calling. In medically integrated oncology practice, nurses are the bridge between clinical decisions and the patient experience. They sit with patients when fear sets in, translate complex treatment plans into plain language, coordinate care across teams and follow up when something feels off. They hold both the science and the humanity of cancer care in their hands every day, balancing clinical vigilance with compassion at every stage of treatment.

NCODA's oncology nurse community was built to support that work. Designed to reflect the realities of modern oncology practice, the community connects nurses across diverse care settings to share insights, address operational challenges and strengthen patient-centered delivery models.

What began nearly a decade ago as a small group of nurses gathering to share stories and support has grown into a vibrant international community of more than 1,700 oncology nurses. That growth reflects a real and recognized need — a place where nurses can meet regularly, speak candidly about challenges and build practical solutions together. Whether serving as an infusion nurse, navigator, clinic nurse or nurse leader, each member has a seat at the table and a voice that contributes to shared progress.

Within the NCODA nurse community, members engage in dialogue grounded in daily practice. Conversations focus on workflow coordination, toxicity management, patient education strategies and quality improvement efforts. The emphasis remains on actionable exchange — solutions that can be implemented directly within local practices and sustained across evolving care models.

In addition to peer collaboration, members have access to integrated care tools developed by oncology nurses to support oral anticancer medication management and broader practice coordination, including:

- **OAM Welcome Letter for Patients** — A structured introduction to oncology care services and expectations.
- **OAM New Start Checklist for Nurses** — A practical guide promoting consistency during therapy initiation.
- **Plan of Care Treatment Guide for Patients** — A clear framework outlining treatment plans and supportive care.
- **New Start Adherence Barriers Assessment** — A tool to identify and address obstacles to treatment compliance.
- **OAM Prescription and Patient Tracking Forms** — Documentation supports promoting accountability and coordination.
- **OAM Follow-Up Documentation Template** — A standardized format reinforcing continuity and quality monitoring.

These resources strengthen documentation, enhance patient communication and promote consistency across multidisciplinary teams. Through the community, nurses exchange insights on implementation and refinement within varied practice settings.

Meet our Oncology Nursing Community Lead: **Mary K. Anderson**, BSN, RN, OCN, Senior Manager of Nursing Membership & Professional Development | NCODA.

As oncology care continues to evolve toward value-based and integrated delivery models, nurses play an expanding role in adherence initiatives, quality measurement and patient engagement strategies. Engagement within NCODA ensures their perspectives remain central to broader organizational conversations shaping education, collaboration and national programming.

The nurse community also supports professional growth and leadership development, reinforcing nurses' visibility within multidisciplinary teams and strengthening their influence in shaping care delivery systems.

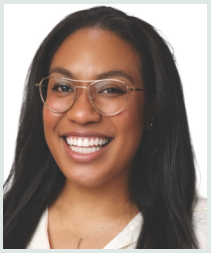
Oncology nurses interested in deeper engagement may connect with NCODA leadership at **ncoda.org/nurses**.

# NCODA COMMUNITIES: PHARMACY TECHNICIANS

## Elevating oncology pharmacy techs through connection, professionalism & certification

NCODA's oncology pharmacy technician community supports the professionals who do much of the day-to-day work that keeps oncology practices running smoothly and patients moving safely through complex treatment pathways.

Recognizing that pharmacy technicians play a vital role within medically integrated cancer care teams, NCODA — through the Oncology Pharmacy Technician Association (OPTA) — provides a dedicated community for technicians to connect, grow and strengthen their professional impact.



Meet our OPTA Lead: **Taryn Newsome**, CPhT, Associate Manager of Membership & Professional Development — Pharmacy Technicians | NCODA.

The Oncology Pharmacy Technician Association (OPTA) was created by oncology pharmacy technicians, for oncology pharmacy technicians. It offers a unified voice, essential resources and meaningful connections that empower technicians to advance both personally and professionally.

OPTA champions collaboration across the multidisciplinary care team and advocates for the role of pharmacy technicians in delivering the highest standard of care to patients.

Membership in OPTA is complimentary, reinforcing the association's commitment to accessibility and collective growth.

### CERTIFIED ONCOLOGY PHARMACY TECHNICIAN CREDENTIAL

To support career advancement and recognize specialized expertise, NCODA and OPTA offer the **Certified Oncology Pharmacy Technician (COPT)** credential — a voluntary certification designed specifically for technicians practicing in oncology settings. Certification highlights:

- Designed for pharmacy technicians with hands-on experience in oncology pharmacy.
- Focuses on oncology-specific knowledge and practical application within a multidisciplinary care team.
- Promotes professional recognition and confidence in role proficiency.

The COPT credential reflects NCODA's commitment to supporting technician excellence and ensuring that the unique demands of oncology pharmacy practice are met with rigorous, relevant preparation.

Whether working in large health systems, community oncology clinics or specialty pharmacy environments, oncology pharmacy technicians who engage with OPTA and the COPT certification expand their professional network, deepen their expertise and strengthen their contribution to patient care.

Technicians interested in pursuing COPT may find further information at **www.ncoda.org/pharmacy-technician-certification**.

Within the NCODA technician community, members engage in regular dialogue about best practices, workflow integration, safety standards and emerging operational needs. OPTA supports education and advancement through a range of programs, including:

- **OPTA Monthly Webinar Series** — Focused discussions on current topics such as medication updates, workflow challenges and role-specific insights.
- **Behind The Counter**— OPTA is excited to introduce its newly refreshed newsletter, a dynamic publication created to inform, elevate, and connect oncology pharmacy technicians nationwide. Each issue is intentionally streamlined to provide digestible, meaningful insights, including legislative updates, workflow innovations, certification opportunities and member spotlights that highlight the strength of our community
- **Continuing Education Opportunities** — Targeted education to help technicians build clinical and operational skills relevant to oncology practice.
- **Professional Educators Network** — Oncology pharmacy technicians play a vital role in advancing patient care, and the Professional Educators Network creates a structured pathway for technician leaders to share their expertise and grow professionally. This volunteer network connects engaged technicians with opportunities to contribute to educational programming, clinical initiatives, and resource development that directly impact cancer care delivery.

Pharmacy technicians interested in deeper engagement may connect with NCODA leadership at **ncoda.org/pharmacy-technicians**.

# NCODA COMMUNITIES: STUDENTS & EMERGING LEADERS

## Connecting tomorrow's professionals with education, experience and opportunity

NCODA's student-focused communities are designed to support future leaders across the oncology care continuum. From classroom to career launch, students who join NCODA gain access to professional networking, educational resources, leadership experience and pathways into meaningful post-graduate roles.

Central to this effort is the NCODA Professional Student Organization (PSO) — a vibrant, student-driven community that brings passion, curiosity and real-world opportunity to those exploring oncology and related healthcare fields.

### PROFESSIONAL STUDENT ORGANIZATION (PSO)

The PSO is a global student community for those interested in oncology, pharmacy, research, advocacy and healthcare leadership. PSO offers a dynamic platform for students to learn, connect and grow alongside professionals from across the oncology spectrum.

Through national engagement and student-led initiatives, chapters provide students with opportunities to build leadership skills, expand clinical understanding and gain insights into real-world oncology practice.

Students involved in PSO can access exclusive benefits, including:

- **Educational Resources & Webinars** — Cutting-edge oncology content used by professionals.
- **Leadership Development** — Roles on PSO executive boards and committees that build organizational experience.
- **Networking & Mentorship** — Connections with NCODA members, professionals and student peers nationally and internationally.
- **Career & Internship Opportunities** — Exposure to residencies, fellowships and industry pathways.
- **Chapter Support** — Templates, stipends and branded materials to help chapters thrive.

Whether you plan to practice clinically, pursue research, or explore oncology policy, PSO offers foundational experiences that make your transition from student to professional seamless. Learn more at **ncoda.org/pso**.

### MEDICALLY INTEGRATED ONCOLOGY PHARMACY (MIOP) RESIDENCY PROGRAM

The MIOP Residency Program offers structured, practice-based training within medically integrated oncology settings. Designed for pharmacists seeking immersive oncology experience, the program integrates residents directly into care teams, where they engage in medication management, patient education and operational coordination. By combining clinical exposure with workflow and quality initiatives, MIOP prepares participants for leadership in modern oncology practice.

Learn more at **ncoda.org/miop-residency-program**.

### NCODA FELLOWSHIP PROGRAMS

NCODA's Fellowship Programs provide structured, immersive post-graduate opportunities for Doctor of Pharmacy graduates looking to deepen their oncology expertise, leadership skills and professional impact.

These fellowships offer real-world experience in medically integrated practice settings and national initiatives, blending project engagement, collaboration and education to prepare fellows for careers across clinical, operational and advocacy roles.

Current fellowship experiences may include:

- **Hands-on practice exposure** — Real-world involvement in oncology teams and clinical operations.
- **Cross-disciplinary projects** — Participation in national quality, education and policy initiatives.
- **Teaching and presentation opportunities** — Platforms to present insights and contribute to education efforts.
- **Mentorship and professional development** — Guidance through structured support and leadership engagement.

Fellowships are designed to equip graduates with the skills, networks and perspective needed to thrive in advanced oncology practice and leadership. Details and application information can be found at **ncoda.org/ncoda-fellowships**.

Meet our Student Community Lead: **Mustafa Abacioglu**, MPharm, Manager of Membership & Professional Development — Students / Residents / Fellows | NCODA.

### NCODA MENTORSHIP PROGRAM

Complementing PSO and fellowships, the NCODA Mentorship Program connects students and early-career pharmacists with seasoned oncology professionals. This structured program pairs participants with mentors who provide personalized guidance, career insight and support through practical tools such as CV reviews, mock interviews and shadowing experiences.

Key elements include:

- One-on-one mentor-mentee pairing based on interests and goals.
- Professional development dialogue that covers networking, rotations, career pathways and interview preparation.
- Goal-tracking and regular check-ins to support progress through the mentorship cycle.

While mentorship is optional, it offers a meaningful bridge between academic experience and professional practice — especially for those pursuing oncology careers. Learn more at **ncoda.org/mentorship-program**.

# Professional Student Organization

## *Empowering The Future Generation of Oncology Leaders*

Our focus is to offer an international community for healthcare students with a passion for oncology and the pharmaceutical industry. The NCODA Professional Student Organization (PSO) was established for students interested in oncology, association management, healthcare advocacy and policy, and industry leadership.

# Opportunities That Shape Oncology Leaders

- First professional study organization of its kind
- Leadership and career development opportunities
- Access to international NCODA meetings
- Creation of educational materials impacting cancer care
- International publishing opportunities in *ForumRewind*, *SummitRewind*, *Inspire*, and *Oncolytics Today* publications
- Enhanced networking with oncology professionals, industry leaders, and key opinion leaders
- Oncology clinical practice experience and mentorship

> Being involved with NCODA has been a highlight of my pharmacy school experience! I have been able to enhance my leadership skills, confidence in public speaking and networking, mentorship skills and expand my knowledge of oncology pharmacy. Through being a part of NCODA, I have been given the opportunity to work with pharmacy professionals and students from around the world, which has been an amazing experience. I highly encourage other pharmacy students to join their school's PSO or, similar to myself, start their own chapter at their university!
>
> -Melanie King
> PharmD Candidate | Class of 2025
> *Memorial University, Newfoundland*
> *NCODA PSO IEB President*

LOCATIONS OF ESTABLISHED PSO CHAPTERS

FOR MORE INFORMATION OR TO SUGGEST NEW CHAPTERS:
**Mustafa Abacioglu** at **Mustafa.Abacioglu@ncoda.org**
Scan to visit, or check out **www.ncoda.org/professional-student-organizations**
Follow us on Instagram: **@ncoda_pso**

NCODA

NCODA Resource Guide

# Meetings & Events



# NCODA MEETINGS AND EVENTS: EXPANDING THE CONVERSATION IN 2026

## NCODA Global Oncology & Haemetology Congress a new opportunity for international engagement and sharing of best practices

NCODA's annual calendar of meetings has long served as a gathering place for oncology professionals committed to advancing medically integrated care. In 2026, that tradition expanded in a significant way with the launch of the **NCODA Global Oncology & Haematology Congress** — the organization's first international congress, held in Dublin, Ireland.

The Global Congress (March 11-12) marked an marked an important milestone for NCODA, reflecting the organization's growing international engagement and recognition that many challenges in oncology care transcend borders.

As treatment innovation accelerates and delivery models evolve worldwide, the need for coordinated, multidisciplinary dialogue has never been greater. The Dublin meeting created a forum where shared clinical priorities and operational realities could be examined through a broader global lens.

Clinicians, pharmacists, nurses, advanced practice providers, technicians and industry leaders convened to exchange insights on treatment innovation, operational strategy, patient engagement and quality improvement.

Sessions emphasized practical application, aligning with NCODA's longstanding focus on solutions that translate directly into everyday oncology practice. Discussions explored how medically integrated models function within different healthcare systems while reinforcing common principles: coordinated teams, accountable processes and patient-centered care.

NCODA meetings and events, such as the annual International Spring Forum, provide members with an opportunity to learn about the latest advances in oncology as well as network with their peers from around the world.

'26 GLOBAL **ONCOLOGY** & **HAEMATOLOGY** CONGRESS
Presented By NCODA

The decision to launch an international congress signals NCODA's commitment to broadening collaboration and elevating multidisciplinary dialogue worldwide. By creating space for cross-border exchange, the organization strengthened its role as a convener of actionable insight, reinforcing that medically integrated care principles resonate across diverse healthcare environments.

NCODA's domestic meetings continue to anchor the professional year. The **International Spring Forum** brings oncology teams together each spring for peer connection and education that blends clinical updates with operational strategy.

Later in the year, the **Oncology Institute** offers focused programming designed to explore emerging trends, therapeutic advancements and evidence-based approaches in care delivery.

The **International Fall Summit**

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The International Fall Summit provides peer-led presentations that blend clinical updates with operational strategies.

## EVENTS

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remains a flagship multidisciplinary event, featuring in-depth sessions, interactive discussions and structured opportunities for professionals across roles to align on shared priorities.

Together, these events create a year-long rhythm of engagement — moments when knowledge, collaboration and leadership development intersect. Each meeting builds on the last, reinforcing continuity while responding to emerging clinical and operational demands.

As the organization looks ahead, its expanding event portfolio underscores a clear theme — connection drives progress.

NCODA's Oncology Institute, held in late summer, gives industry representatives the opportunity to engage with clinicians on solutions to the daily challenges facing patients and practices.

By bringing professionals together across disciplines and geographies, NCODA continues to foster dialogue that strengthens practices, sharpens strategy and ultimately supports better patient outcomes. For updates on NCODA's full calendar of meetings and educational programming, visit **ncoda.org/events**.

**FOR MORE INFORMATION ON NCODA MEETINGS AND EVENTS, SCAN THE CORRESPONDING QR CODE**

GLOBAL ONCOLOGY & HAEMOTOLOGY CONGRESS

INTERNATIONAL SPRING FORUM

ONCOLOGY INSTITUTE

INTERNATIONAL FALL SUMMIT