Exploring key considerations in subcutaneous anticancer therapies

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Background

The continuous climb in the number of available anticancer therapies offers a captivating alternative to traditional intravenous (IV) therapies. The incorporation of the use of hyaluronidase has led to the rise in the development of therapies given subcutaneously. [1, 3, 7] A review of the literature included 169 publications and found that when compared with subcutaneous (SC) versus IV administration, studies concluded similar efficacy [4] and decreased infusion chair times. Studies also concluded that (SC) formulations saved time and in turn improved patient, caregiver, and nursing staff quality of life. [1, 4,5, 6, 8]

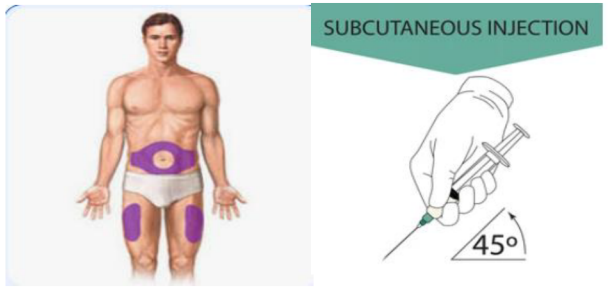
The purpose of this project is to raise awareness of the growing number of SC anticancer formulations available and the pros and cons of switching to SC administration versus traditional IV administration.

Objective(s)

- List at least three advantages for patients and the practice of transitioning to subcutaneous anticancer therapies.
- Identify at least two challenges of transitioning to subcutaneous anticancer therapies.
- Discuss why hyaluronidase is used in some anticancer subcutaneous formulations.
- Describe some proper body mechanics and/or different ways to administer subcutaneous anticancer therapies to prevent nursing injuries.
- Discuss the appropriate subcutaneous anticancer administration site and needle angles that should be utilized when providing these medications.

Methods

A review of the literature was performed including journal articles, podcasts, and online resources. The primary themes were reviewed and pulled from the literature.



The picture above shows injections sites that manufacturers recommend giving SC anticancer therapies. Please remember to follow your manufacturer guidelines on where to administer, needle length, needle gauge recommendations, and needle injection angles. Also, remember to follow your manufacturing guidelines, regarding administration time and medication preparation.





Can be given with or without butterfly administration set per manufacturers guidelines.

Discussion/Key Findings

Pros of SC administration:

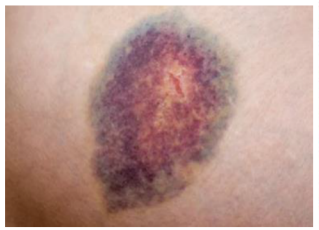
- Decreased chair time,
- Increased treatment/patient satisfaction
- Improved caregiver productivity. [1, 4,5, 6, 8, 9]
- Less or no infusion reactions as compared to the IV preparations. [4]
- Decreased infections were noted due to not using central lines for administration. [4]

Cons of SC administration:

- Higher incidence in injection-site reactions. [2, 8]
- Patients with needle phobia. [1, 5]

SC administration considerations:

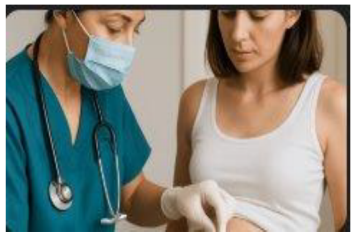
- Due to the high volume of medication that is administered subcutaneously, hyaluronidase is often used in these formulations to increase absorption and help with injection tolerance. [1, 3, 7]
- **Using proper body mechanics during administration and/or administration sets tend to prevent caregiver injuries**. [2, 5]



The picture above shows an example of an injection site reaction. Could have bruising, redness, and swelling under the skin. Remember to alternate injection sites.



The picture above is of a nurse using poor body mechanics. With the length of administration of SC anticancer therapies being several minutes the nurses back is going to suffer from leaning over the patient's body.



For proper body mechanics remember to get close to the patient. Make the patient and yourself comfortable. Do not lean over the patient and bring the patients height to the same angle as yours.

Results / Conclusion

In conclusion the transitioning of anticancer medication from (IV) to (SC) administration is growing drastically with new formulations being approved consistently. It is important **to administer using correct body mechanics**. [1, 2] The efficacy of these (SC) formulations has been proven to be similar and even more efficient than the (IV) formulations. [4] Nurses should prepare themselves with the knowledge of how and what site these medications should be administered and to monitor for injection site reactions. It is also important to educate your nursing staff on the appropriate needle size, site, and administration time of each different anticancer (SC) medication that they are providing and to follow the medication manufacturing guidelines with preparation/administration. [1, 2]

References

Disclosures

No disclosures