



InfoSheet

MANAGING INJECTION SITE REACTIONS ASSOCIATED TO TREATMENT

Novel therapies used to treat Multiple Myeloma, and other associated conditions can be injected in one of three ways; subcutaneously (directly under the skin), intramuscularly (into the muscle tissue) or intravenously (directly into the veins). These administration methods, however, may result in the occurrence of injection site reactions.

These reactions can vary in severity and type depending on factors such as the route of administration, the medication being used, and the individual patient's sensitivity.

This InfoSheet will give you more information about injection site reactions – including how they can affect your body. It will also cover how to recognize its signs and symptoms, as well as ways to better manage this side effect.

Definition and causes of injection site reactions

Localized injection site reactions are responses that may occur at or near the injection site. These reactions can arise from subcutaneous, intramuscular, or intravenous medication administration. Any medication, including vaccinations, have the potential to cause a local injection site reaction.

Localized injection site reactions typically range from mild and transient symptoms to more severe complications, though they are usually mild and resolve quickly. Common symptoms include redness (erythema), swelling, pain, tenderness, itching, bruising, and, in rare cases, infection or abscess formation. These reactions are often caused by the mechanical insertion of the needle, the properties of the medication (e.g., irritants), or an inflammatory or allergic response¹.

¹ Cole, B. Injection-Site Reactions and How to Manage Them. Pharmacy Times, 2019. <https://www.pharmacytimes.com/view/injection-site-reactions-and-how-to-manage-them>

Intravenous (IV) therapy is widely used to deliver fluids, nutrients, and medications directly into a patient's bloodstream. While highly effective, IV therapy carries risks, including two common complications: IV infiltration and IV extravasation.

Infiltration occurs during the intravenous administration of a medication. It is an adverse reaction when a non-irritating medication escapes from the veins or intravenous catheter and the medication gets into the surrounding tissues. These drugs do not cause blisters or tissue necrosis. Common symptoms include pain, swelling, coolness, tight skin, or skin appearing pale around the IV site. These reactions cause minimal tissue damage and like localized injection site reactions are typically mild and short-term.

Extravasation is an adverse reaction when an irritating medication escapes from the veins or intravenous catheter and gets into the surrounding tissues. These are more serious, as these medications can cause tissue damage, which can lead to necrosis, or tissue death. The common symptoms include severe pain, swelling, redness, skin discoloration, blistering, and a feeling of heat near the IV site².

² Lee, S. Side effects of chemotherapy. Canadian Cancer Society, 2016. <https://cancer.ca/fr/treatments/treatment-types/chemotherapy/side-effects-of-chemotherapy>

How are injection site reactions treated?

It is important not to try to treat injection site reactions caused by intravenous administration yourself, unless instructed by your healthcare provider.

Both infiltration and extravasation are treated by immediately stopping the treatment and cleaning the area around the IV site to prevent any further damage. Next steps will depend on the medication that was being administered.

