Incidence of Drug Leakage When Giving Subcutaneous Immune Globulin (SCIg) and Facilitated Subcutaneous Immune Globulin (fSCIg) Treatments - Is it More Frequent than Expected?

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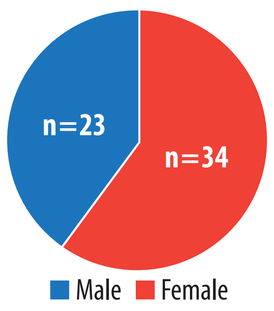
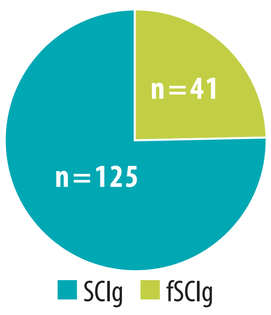
Patient Background

Male vs. Female



Number of SCIg vs. fSCIg



Introduction:

During our study of selecting the optimal needle length for SCIg and fSCIg infusions, we found a higher rate of drug leakage from infusion sites than expected. Patients haven't spontaneously mentioned occurrence of leakage prior to the study. There are several parameters to consider when selecting the optimal needle length to avoid local site complications. Drug leakage at the site is one of the contributing factors.

Objective:

To investigate patients' experiences and local site complications when administrating SCIg and fSCIg.

Method:

Questionnaires were used to gather patient data from 3 different infusion treatments. To assess patient's local site complications, we asked participants to report any leakage of drug during and/or directly after treatment, when removing the needle from the infusion site.

Result/Discussion:

57 patients reported outcomes from 166 infusions. Interesting findings in relation to the high incidence are:

- 34 patients reported experience with drug leakage during or directly after treatment.
- 30 placed the needle by themselves and 4 were placed by a nurse.
- 48% of all 166 infusions reported occurrence of drug leakage.

We suspect there are several factors contributing to leakage of drug such as technical skills, selection of infusion site(s), optimal needle length, dressing used, dose and volume per site, subcutaneous fat layer, infusion rate, and pump used.

Conclusion:

Today, patients don't spontaneously report leakage. This must be investigated to improve treatment therapy and be a part of the standard follow up and patient evaluation made by health care professionals. The practice is through clinical experience in which longer needles are typically recommended. Today there are limit guidelines available and further research is needed.

References:

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Disclosure:

Authors of this presentation have the following to disclose concerning possible financial or personal relationships with commercial entities that may have a direct or indirect interest in the subject matter of this presentation:

Ramona Fust, RN, BSN: University Hospital in Linköping, Department of Infectious Diseases
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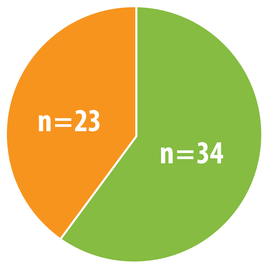
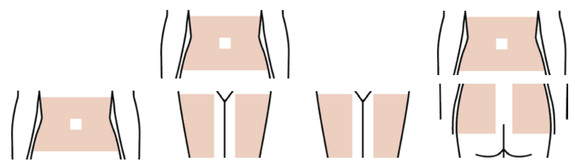
Results from166 Infusions:

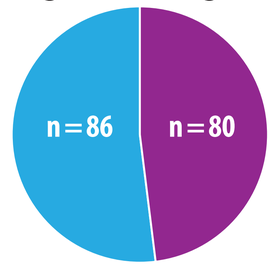
57 patients total:



Infusion sites used:

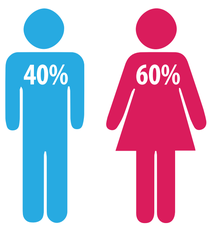


No leakage vs. leakage infusions:

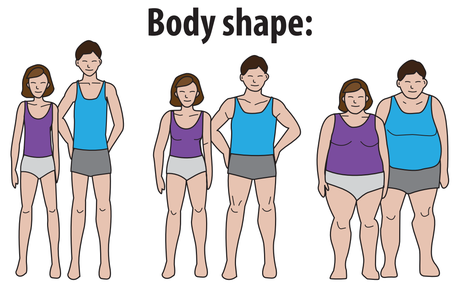


Breakdown of 34 Patients Who Reported Leakage:

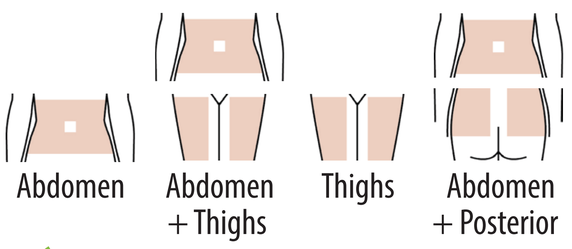
Gender:



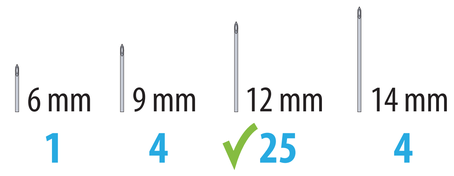
Body shape:



Infusion sites used:



Needle length used:



Experience of treatment:

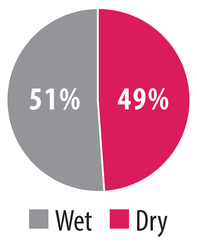
✓ Check-mark represents the majority within the category

Breakdown of 80 Infusions with Leakage:

SCIg vs. fSCIg Leakage:

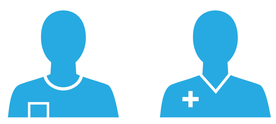
SCIg inf.	68 out of 125 (54%) reported leakage
fSCIg inf.	12 out of 41 (29%) reported leakage

Priming technique:



Movement during infusion:

Who placed needle?:

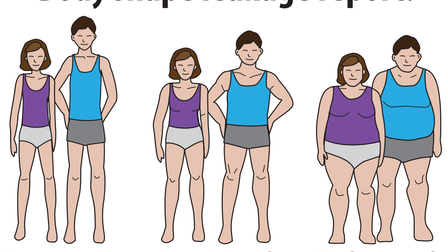


When leakage occurred:

During infusion	9%
After infusion	66%
During & after infusion	25%

Leakage % for each type of site dressing used:

Body shape leakage report:



Continuing Infusion Improvement:

Drug leakage is rarely reported spontaneously by patients.

- Choice of site dressing can impact incidence of drug leakage.
- Patients selecting body shape as Endomorph reported more drug leakage events.
- To overcome drug leakage events, the right selection of infusion site(s), number of infusion site(s), optimal needle length, dressing used and flow rate needs to be considered.
- Investigating and evaluating patient treatment is an essential part of the standard follow up. By measuring infusion outcomes, a continuous improvement cycle can be created.