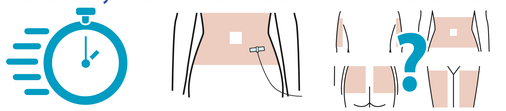
Are There Secrets in How to Find and Assess Optimum Subcutaneous Immunoglobulin (SCIg) Infusion-Sites on Your Patient?

Background

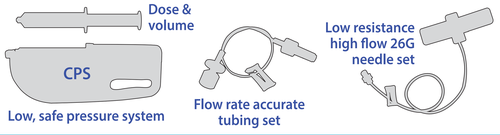
Large volume subcutaneous immune globulin (SCIg) administration places increased demands on the infusion system. Patients ask for faster delivery times, fewer needles and how to select the best infusion-sites to administrate their medication. The infusion technology selected will impact infusion-site performance and the potential to eliminate local-site adverse reactions or adverse events (AE's). To assess infusion-sites, a constant pressure system (CPS) is required, which operates using a true constant pressure from start to end of the infusion. In addition, performance of all ancillary supplies needs to be known to establish a SCIg administration baseline with consistent and targeted flow rate.

Patients ask for:

Fast delivery time | Fewer needles | How to select sites

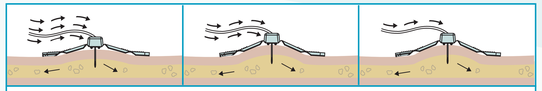


Choosing the right system components:



Purpose

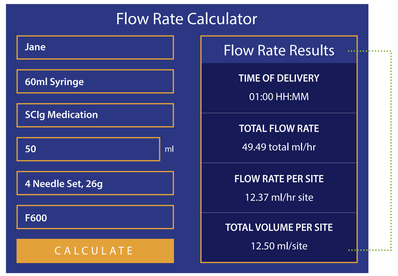
The CPS has the unique capability to balance SCIg delivery flow rate to a selected infusion-site tolerability. Utilizing this important feature allows clinicians and patients to assess infusion outcomes and make clinical adjustments as needed.



Constant Pressure System immediately responds to increasing pressure in the site(s) by automatically adjusting the flow rate.

Methods

The predicted performance of the entire infusion system is known, which leaves the only variable as the patient. This method provides a feedback loop for trending SCIg infusions towards desired results. The entire CPS, and all of its components, are set to one hour infusion time, and time required for half the dose to be administered is recorded, followed by recording the time for the second half to be completed.



Predicted infusion based on input info.

The patient is the only variable

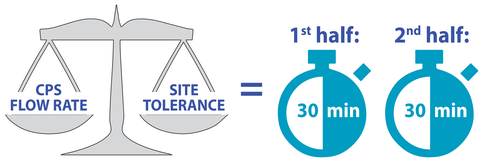
Variables that impact tolerability:

- Infusion sites selection and volume per site
- Optimal needle length in relation to the amount of sub-q tissue and body shape
- Infusion flow rate

Results

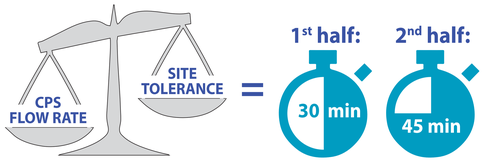
When the infusion system is in balance with the patient's tolerability and set to one hour infusion time, half the dose is administered in the first 30 minutes and the other half in the second 30 minutes. This shows that the infusion-sites are performing as expected and generally patients report comfortable treatment. The implication for patients who experienced a longer time for the second half, is that the system is not in balance; infusion-sites are near or at saturation. The CPS is appropriately compensating with lowering flow rate.

Infusion system is in balance:



- Infusion-sites are performing as expected
- Generally, patients report comfortable treatment

Infusion system is NOT in balance:



- Infusion-sites are near or at saturation
- CPS compensates by lowering the flow rate

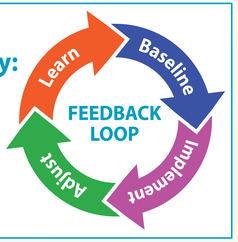
Conclusion

This process allows clinicians to determine which infusion-sites work best. Patients can be advised to record the time of the first half of their infusion and likewise the time for the second half. This can be helpful for larger infusion-site volumes and faster flow rates with least pain. By measuring infusion times and infusion-sites tolerability, the approach can create a continuous improvement cycle balancing patients' infusion-site reactions with personal objectives for best quality of life experience. The same process can be employed when diagnosing infusion-site reactions or changing patient preferences to find solutions.

By measuring infusion time and site tolerability:

- Clinicians can determine which infusion-sites work best

- A continuous improvement cycle can be created



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Contributing authors:

Fred L. Ma, M.D.,Ph.D.[1], Chatarina Soderman, RN. MBA[2], Andrew Sealfon[3], Paul Mark Baker M.D[4]

[1] Chief Medical Officer, RMS Medical Products, [2] VP of Product Marketing& Clinical Affairs Associate, RMS Medical Products, [3] President, RMS Medical Products, [4] Crystal Run Healthcare

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24 Carpenter Road • Chester, NY 10918 • USA