

Providing Safe, Efficient Desensitization Protocols

The Problem

- Patients with certain types of allergy to a medication that is needed for treatment may have the option of undergoing desensitization in order to safely receive the medication
 - Desensitization involves giving very small doses of medication and then gradually increasing the dose until the therapeutic (target) dose is reached.
 - Desensitization occurs in an Intensive Care Unit
 - After successful desensitization, the patient may receive the medication safely as long as doses are not missed
- BIDMC has traditionally used a 7 dose protocol, which, upon review of the literature and other institutional protocols, needed to be updated to a 12 dose protocol.

Aim/Goal

The goal was to update the desensitization process to create a safe, consistent desensitization protocol for Intravenous antibiotics that is patient-centered, evidence-based, and efficient.

The Team

Erica Dente- patient
John Marshall, Pharm D - Pharmacy
Wendy McHugh, RN, MS- Critical Care Quality
Peter Clardy, MD- Director of Medical Intensive Care
Susan Holland, RN-FICU Nurse Manager
Kristen Russell, RN – MICU 6/7 Nurse Manager
Anna Kovalszki, MD – Department of Allergy
Autumn Guyer MD – Department of Allergy
Carol Bates, MD- HCA Primary Care

The Interventions

- The patient contacted a nurse she knows from their work together on patient engagement at BIDMC.
- The problem was relayed to the ICU pharmacist who met with the patient to review their experience in the ICU
- The pharmacist conducted a literature search and convened a working group to update institutional guidelines, creating an evidence-based 12 step protocol.
- The ICU Pharmacist, Physician, and Nurse Manager provided staff training on the administration of the new protocol.
- The Primary Care physician was notified of the streamlined admission plan.

The Results/Progress to Date

	Old Desensitization Guidelines	New Desensitization Guidelines
Number of Steps	7	12
# of IV Bags Produced by pharmacy	7	3
# of protocols for antibiotic desensitization	25	1
Estimated Pharmacy Production time (minutes)	30	10
Time from ICU admission to therapy initiation	9 hours	2 hours

Lessons Learned

- The admission process is now streamlined and all IV antibiotics are included under one standardized protocol
- Rather than preparing 7 separate bags, the pharmacy now prepares only 3 bags for the entire process, reducing the time needed to prepare the medications, as well as reducing the chance for error
- Actively listening to patients and families. A shared sense of value provides a connection vital for partnership, which ultimately leads to improved care, increased efficiency, decreased cost and greater patient/family and health care provider satisfaction.

Next Steps/What Should Happen Next

- Continue educating all ICU nurses and pharmacists on the implementation of 12-step desensitization protocols and programming the smart pumps using multistep option
- Education in other patient care areas where patients may receive follow-up care that once desensitized to a medication the patient is at no greater risk of anaphylaxis than the general population.

