

Medication Safety Alert

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Focus on ... **Emergency Antibiotics and Warfarin**

According to The American Society of Consultant Pharmacists, Warfarin still ranks most high on the list of Top Ten Dangerous Drug Interactions in Senior Care. Three out of the ten interactions are Warfarin and antibiotics.

Since some of the most common medications used from emergency supply kits or filled by back-up pharmacies are oral antibiotics, it is critical that Facility Staff inform prescribers if the resident or patient is using Warfarin when receiving a new verbal order for an antibiotic

This is an excellent opportunity for the Pharmacy, Consultant Pharmacist, Prescriber and Facility Staff to examine this aspect of patient safety through a Quality Assurance initiative where the goal should be something quite achievable:

Residents should not experience an adverse consequence due to a warfarin interaction when an antibiotic is ordered over the telephone.

Step 1. Examine the factors that may place a resident at risk if an emergency antibiotic is needed. *For example:*

- Prescriber may not know the resident's entire medication regimen since the chart may not be available or if he/she is not the assigned attending physician
- On-call pharmacist arranging for a back-up pharmacy delivery may not have access to the resident's medication profile
- Members of the care team may not be aware of a drug-drug interaction with warfarin and some antibiotics
- Facility Staff accesses the medication from the emergency kit before calling the pharmacy to order the medication
- The antibiotic is taken before clinical screening for drug interactions is performed by a pharmacist
- New Admission orders are taken from the emergency drug supply before the pharmacist performs the clinical screening for drug interactions.

Step 2. Discuss, decide and implement the processes that may prevent the drug interaction. *For example*

- Prescribers always ask what other medications the resident is using before giving any new medication order.
- Facility Staff is prepared to provide the medication regimen before calling a prescriber when an antibiotic may be indicated.
- The use of an antibiotic is clinically indicated based on resident signs and symptoms and culture.
- Emergency box use meets the criteria of an emergency situation
- Medical Director, Pharmacy Representative or Consultant Pharmacist educates staff on antibiotic-warfarin interactions, including any black box warning.
- A list of common antibiotic-warfarin drug interactions is made easily accessible for reference in the facility
- A note in the emergency box reminds the nurse about checking for drug interactions before administration.
- Pharmacy notifies the facility of a possible drug interaction when filling new orders even when the first dose has already been administered from the emergency supply

Step 3. Determine what the facility should measure as a monitor of success. *For example:*

- The number of antibiotic orders initiated from the emergency box
- The number of residents on warfarin who had a clinical screening for drug interactions preformed by the prescriber or pharmacist before the first dose was administered
- The number of warfarin-antibiotic adverse drug interactions recognized and documented, and adverse consequences averted

Step 4. Analyze your results and improve the process. *For example:*

- This can be done with the facility safety quality assurance agenda or
- This can be done during the facility infection control meeting or
- This can be performed during the Pharmacy meeting to address unnecessary drugs

