

## **DAWN AC Medication Interface and its Impact on Patient Safety**

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Brigham and Women's Hospital in Boston, Massachusetts asked DAWN AC to create a medications interface that pulls all medications from the patient's central medical record into DAWN AC. The interface went live in April 2014 and there have been many improvements in patient safety as a result.

The medication tab is checked in the list view daily to see if there are any pertinent interacting medications that need action. This list view shows all medications that were entered as new, reconciled, or discontinued in the patient's online medical record within the past day. For these medication interactions, the patient can now be contacted to have them tested sooner or make empiric dose adjustments. Prior to the interface the Anticoagulation Management Service (AMS) relied on patients or doctors contacting them with medication changes.

A quick code was created to track the amount of interventions made due to the medication interactions discovered through the drug tab because the AMS wanted to be able to quantify the impact of this new medication interface. Within the first six months of the interface going live, over 300 adjustments had been made to patient's warfarin dose or test date. This in turn most likely decreased critical INRs, bleeding events, clotting events, and/or hospital visits.

There are a few things that could pose possible obstacles to the new drug interface including empirically making dose changes too aggressive, causing the INR to become subtherapeutic or supratherapeutic. This can be prevented by making sure to test more frequently when making dose adjustments due to drug interactions. Another issue that may arise is that patients may assume all drugs they are started on will be updated by the interface. This could lead to a decrease in communication from the patient. They may stop reporting new medication changes/dose changes.

It is hoped this new interface will help the AMS come up with a dosing interaction guideline in the future. In addition, there is a plan to add more detailed interaction information into DAWN AC to help give more guidance for making empiric dosing decisions.

The interface has been very helpful in alerting the AMS of interactions but, it is important to continue to educate patients to take an active role in their healthcare. They need to be reminded to keep their warfarin manager up to date with any medication changes.