

Bringing Safety to Intravenous Chemotherapy Administration Through the Use of Technology

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Introduction

Currently, The Miriam Hospital does not include Intravenous (IV) chemotherapy in the medication administration compliance (MAK) bar-coding process due to the complexity of chemotherapy regimens. It was initially identified that the chemotherapy administration process is so unique that it was impossible to integrate MAK technology into the process. Because chemotherapy agents are such a high risk medication, it is all the more reason to make sure all safe guards are in place to deliver safe and accurate chemotherapy doses. Recognizing the safety that MAK provides, the pharmacy team, oncology nurses, and the clinical informatics team partnered to analyze the process of IV chemotherapy administration and are currently working to integrate MAK into the process.

Methods

MAK brings many safety factors to the medication administration process through addressing the 6 patient rights at the point of care. MAK also provides drug to drug interactions and compares the chemotherapy agents against the patient's allergy list. These three elements are very important in the drug administration process. The IV chemotherapy administration process is so unique and complex that it was not included into the MAK roll out three years ago.

Results

Our proposal analyzes the risks in each step of the current chemotherapy administration process, and then rates the level and frequency of the risk. The current process we use begins with the LIP ordering the chemotherapy using a paper prescription. Pharmacy then verifies the dose and prepares the medication. During this time, the nurse is transcribing the chemotherapy regimen onto a paper schedule which is verified with another nurse for verification of appropriate medication and accuracy of the prescribed dose. After identifying the risks in the current flow, we examine how MAK technology can not only be integrated into the chemotherapy administration process, but show how MAK technology can improve the current workflow to mitigate the identified risks and provide safer patient care.