Preventing Staff from Feeling the Blues During a Code Response

Project Description
In July 2014, a new initiative was started at Holy Cross Hospital was created to increase the number of pharmacists attending code blue responses throughout the hospital. This initiative was inspired by evidence suggesting that less medication errors occur during code blue responses when pharmacists manage the medications compared to nurses or physicians. This is particularly important because medication errors during codes are more likely to result in harm and death than non-code related medication errors. In addition, pharmacists serve as valuable sources of drug information including drug shortage management which can alter how the team will treat the patient. Prior to the creation of this initiative, pharmacists were not members of the multidisciplinary code response team and their involvement was limited to being members of the code response committee. To assess the effectiveness of the initiative, a goal was set for pharmacists to respond to at least 80% code blue alerts per month.

Process Implemented
In order to understand how to facilitate pharmacist participation in code blue response teams, major barriers preventing pharmacists responding to codes were identified. One of these barriers was that many pharmacists were not ACLS certified and had not received the appropriate training or education to become an effective member of the code blue response team. Another barrier that was identified was the lack of specific designations to guide which pharmacists would be responsible for attending specific codes. In order to achieve the goal of this initiative, these barriers were targeted since they were found to be the most significant obstacles preventing pharmacists from participating in code blue responses.

Solution Identified
To ensure that pharmacists would have the necessary knowledge and training to participate in code blue responses, Holy Cross Hospital made it a mandatory requirement of employment for all of its pharmacists to obtain ACLS and BLS certification. This requirement was met by all full time pharmacists as of December 2014 and all pharmacists including part time employees have met this requirement as of October 2015. Since ACLS and BLS certification is an ongoing process that requires continuous renewal, this requirement ensures that all pharmacists will be familiar with the latest guidelines produced by the American Heart Association which guide the use of medications during code blue situations. The pharmacy department also provides educational lectures and hands on experience using mock code blue situations in order to reinforce the training the pharmacists have previously received through their ACLS and BLS certification courses. In addition, the incorporation of fun activities such as jeopardy games focused on ACLS information has helped to increase pharmacist interest and engagement in the initiative. In order to eliminate confusion as to which pharmacists would be responsible for attending a particular code, a system was created to designate which pharmacists would be responsible for attending a code depending on the unit. These designations were guided by the location of decentralized pharmacists which enables the responding pharmacist to arrive to the code more quickly and also creates a clear division of responsibilities.
**Measurable Outcomes**
All pharmacists responding to code blue alerts are required to document their participation which allows the pharmacy department to track how many code blue responses are attended by pharmacists. When taking into account the total number of code blue responses, the percentage of pharmacists attending code blue alerts can be determined and use to evaluate whether we are meeting the goal to have pharmacists respond to 80% of code blue alerts. Another outcome that is evaluated is the appropriateness of medication utilization during the code which allows the pharmacy department to identify contributing factors to errors and improve future practices.

**Sustainability**
In order to make sure that improvements in the number of pharmacists responding to codes are sustained, this initiative must be an ongoing project that continues to engage the pharmacy department as well as other healthcare disciplines that respond to code blue alerts. To account for changes in guidelines and the addition of new employees, the pharmacy department continuously provides training and education to its staff. In addition, the pharmacy department consistently tracks the number of pharmacist responding to code blue events which allows an ongoing evaluation of the initiative to determine if additional barriers are present which have not been adequately addressed.

**Role of Collaboration and Leadership**
Collaboration with other healthcare professionals who respond to code blue alerts play a major role in the success of the initiative. The pharmacy department has worked with critical care teams, emergency department physicians and nursing educators to make sure that all disciplines are aware and supportive of the initiative. This collaboration has led to concrete changes that have improved code response practices such as the streamlining of medications included in code carts which have reduced costs and removed unnecessary medications. Due to pharmacists now having an increased presence at code blue responses, other disciplines have come to recognize the benefits of having a pharmacist as a member of the team. Consequently, there has been a change in culture reflected by an expectation that pharmacists will respond to codes. In addition, intradepartmental collaboration is also an essential component to the initiative. When a decentralized pharmacist responds to a code to which they are assigned based on the location, the rest of the pharmacy staff takes note and helps to support that pharmacist by covering their responsibilities so that there is no lapse in the provision of pharmacy services. Also, this tactic helps to ensure that the responding pharmacist is not overwhelmed which increases the probability that they will continue to respond to code blue alerts. Leadership plays an important role in the initiative because they must constantly assess the progress being made and engage the staff to determine how we can increase the number of responses to code blue events and consistently meet our goal. Leadership must also ensure that pharmacists are provided with the necessary resources and support to enable them to be successful members of the code blue response team and integrate pharmacists' participation in code blue responses into the practice model.

**Innovation**
This initiative is unique because it focuses on providing all pharmacists with the tools to respond to code blue alerts. Since pharmacists rotate to different positions within the pharmacy
department, this aspect of the initiative ensures that every pharmacist will be able to handle the responsibility of responding to code blue alerts wherever they occur.

**Related Tools and Resources**
Tools and resources used include ACLS guidelines from the American Heart Association and the use of Cerner to capture data used to assess the effectiveness of the initiative.