

Re-implementation of a non-formulary review process through pharmacy & therapeutics committee

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Background: Formularies are developed and maintained by the Pharmacy and Therapeutics (P&T) Committee and provide a list of medications for use within an institution. As a DNV hospital, Novant Health New Hanover Regional Medical Center (NH NHRMC) must comply with requirements set by the National Integrated Accreditation for Healthcare Organizations (NIAHO) to maintain accreditation. The NIAHO sets requirements regarding creating, reviewing, and adjusting the institution's formulary that must be met to maintain accreditation. Furthermore, New Hanover Regional Medical Center (NHRMC) was recently acquired by Novant Health, therefore in addition to meeting the NIAHO standards, the institution is currently working towards formulary integration with Novant Legacy. Current policies at NH NHRMC, state that the pharmacy department is to provide the P&T Committee with a non-formulary use report quarterly, and that agents used more than 5 times per quarter may become candidates for formulary addition. With that being said, there is no current standardized process utilized here at NH NHRMC for reviewing non-formulary utilization.

Objective: The primary objective of this project was to re-institute a non-formulary review process. Secondary objectives were to develop a process for correctly identifying non-formulary medications and their utilization at NH NHRMC, compare NH NHRMC's non-formulary process to Novant Health, and re-evaluate and adjust criteria for evaluation of non-formulary medication inclusion to the NH NHRMC formulary.

Methods: This was a retrospective review of all inpatient medication orders placed between January 1, 2021 and December 31, 2021. A report containing all inpatient non-formulary orders was obtained through the institution's electronic health record (EHR) utilizing SlicerDicer. These orders were then coded with a simplifier along with actual formulary status utilizing the institution's formulary management system. A database was then created utilizing Microsoft Access to allow for data organization and analysis, and descriptive statistics were used to analyze the results.

Results: In 2021, there were over 3-million inpatient orders placed at NH NHRMC. Of these, 14,766 were categorized as non-formulary within the EHR, which equates to about 3,700 non-formulary orders per quarter. Once given a simplifier, coded appropriately as formulary, non-formulary, therapeutic interchange, or restricted, and entered into the database, it was determined that 873 of 3885 (22.5%), 938 of 4061 (23%), 875 of 3822 (22.9%), and 915 of 2998 (30.5%) of orders had been accurately coded as non-formulary during quarter 1 through quarter 4, respectively. Taking it a step further and looking at specific non-formulary medications that had been ordered greater than or equal to 5 times, there were over 50 medications per quarter. Per the current NH NHRMC policy, that means more than 50 non-formulary medications would be eligible for review for inclusion to the formulary. However, when looking at non-formulary medications ordered greater than or equal to 15 times per quarter, there were only 7 to 12 medications that would be eligible for review for inclusion to the formulary.

Conclusion: Ultimately, it was found that less than one-third of orders placed each quarter of 2021 were coded correctly within the EHR as non-formulary. With the current policy of reviewing agents used greater than or equal to 5 times a quarter, about 50 agents would need to be evaluated quarterly,

however if changed to greater than or equal to 15 times a quarter only about 7 to 12 agents would need to be reviewed quarterly, which is more feasible from a productivity standpoint. Next steps for this project include developing a standardized process for reviewing non-formulary utilization quarterly, to continue to maintain the database, and adjust the current policy to have agents used more than or equal to 15 times a quarter be eligible for formulary addition.