A MIXED METHODS APPROACH TO CHARACTERIZING THE VALUE OF CLINICAL PHARMACIST PRACTITIONERS IN ACUTE CARE PRACTICE

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**Background/Purpose:** Over the last two years, Novant Health Department of Pharmacy has sought to elevate the expectations of all pharmacists with the goal of increasing involvement in direct, patient-focused clinical activities. As part of the care model transformation, credentialing and privileging eligible pharmacists as Clinical Pharmacist Practitioners (CPPs) was identified as an opportunity to optimize patient care while enhancing the pharmacist scope of practice. CPP practices were initially implemented in the ambulatory setting but engaging pharmacists in this role in the inpatient setting also showed optimization of medication management and safety. At Novant Health, pharmacist productivity was historically measured by intervention documentation and orders verified. Interventions represented time spent by pharmacists to ensure medication therapy was optimal for patients. CPP productivity was objectively measured by orders entered pursuant to a collaborative practice agreement (CPA), interventions documented, and orders verified in the course of caring for patients. Upon adoption of CPP in the Novant Health acute care setting, an assessment showed a mean increase in interventions documented, orders verified, and orders written pursuant to a CPA. These markers of increased productivity allowed for quantitative support of CPP practice to enhance pharmacy metrics.

The purpose of this study was to add to the previous knowledge by characterizing the types of interventions made by CPPs and providing qualitative data to add provider perspective to the assessment of value of the CPP on the acute care team.

**Primary Objective:** To characterize the types of interventions made by CPPs

**Secondary Objective:** Assess the impact of CPP implementation on providers within a multidisciplinary care team

**Methods:** A mixed methods approach was utilized to offer complementarity between qualitative and quantitative data regarding CPPs. Concurrent qualitative and quantitative data collection occurred. Integration of qualitative and quantitative data occurred during analysis of the data.

**Pharmacists Interventions Analysis**: Multicenter, IRB-approved, retrospective assessment of intervention data by three critical care CPPs to assess the number and percent of interventions made by type. The primary endpoint measured was the number of interventions made by type. Descriptive statistics were used to analyze this data.

**Provider Survey:** Multicenter, IRB-approved assessment of open ended and multiple-choice questions sent to multidisciplinary care team members. The secondary endpoint was provider perspectives regarding CPP impact on patient outcomes and physician practice. Thematic analysis was used to analyze this data.

**Results:**

**Pharmacists Interventions Analysis**: The leading activities for CPPs based on intervention by type were patient eligibility reviews, interventions, and “other” categories which accounted for 49.6%, 25.7%, and 20.9% of documented interventions respectively. These interventions included activities such as warfarin management, heparin management, renal dose review, and therapeutic monitoring of other drugs.

**Provider Survey:** For all 6 quantitative survey questions, “strongly agree” was the most prominent response regarding both patient outcome questions and efficiency/communication questions. Prominent themes identified regarding benefits of CPPs from the perspective of their care teams included improved patient outcomes, improved teamwork, increased efficiency, and a desire for expanded CPP practices into additional practice areas with expanded scope of practice.

**Conclusions:** This study added to previous knowledge by characterizing the types of interventions made by CPPs and provided qualitative data to add provider perspective to the value of CPPs on the acute care team. These types of interventions contribute to the practice of pharmacy by exemplifying the expanded scope of practice for pharmacists. The provider survey data revealed qualitatively positive provider sentiment regarding CPP contributions to patient care and supports the acceptance of CPP integration into patient care teams.