2020 Northwestern States Residency Conference

Saturday, May 30, 2020 | 7:30 AM – 6:00 PM PDT

## General instructions for submitting an abstract for a resident platform presentation

Presenters are required to submit a presentation abstract by **April 6**. The abstract may be submitted separately from registration. The following instructions must be followed to ensure the submission is placed in the appropriate subject track and meets the publication standard for electronic conference materials.

Residents and fellows are expected to have a peer or mentor proofread their submission carefully for errors in flow, grammar or spelling before presenting their abstract for review and approval. Residents and fellows are responsible for obtaining review and approval by all project mentors and co-investigators for clarity and content accuracy before submitting.

Abstracts are limited to 500 words and 3000 characters not including the title, presenter, investigators, and institution.

For additional questions regarding abstract submissions, please contact:

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**Presentation title:** The title must contain no more than 150 characters with spaces. Only capitalize the first word, proper nouns and acronyms. The title should clearly express the nature of the research or project. The title must not mislead the audience regarding the topic or project results.
*– Example: The rate of appropriate stress ulcer prophylaxis in an ICU before and after implementation of a pharmacist-driven protocol*

**Abstract:** The body of the abstract must not exceed 500 words. The abstract should briefly provide an accurate overview of the project that will be presented at the conference. It must include the following information in a single paragraph WITHOUT subheader designations (e.g. Methods). The subheaders are provided here as guidance for content areas only. Management/QI/new program/education projects may deviate from the standard clinical abstract style to suit their content.

- Introduction and background / Purpose
- Methods
- Results (If no results or partial results are available, include a statement of this status. e.g. Preliminary results will be presented.)
- Conclusions
- IRB status: (approved, approval pending, or exempt)

**Learning objectives:** For CE requirements, each presentation must have at least one associated learning objective. You may submit a max of 3 learning objectives. The learning objective should focus on an observable or measurable demonstration of specific knowledge, mastery of a skill, or a change in attitude as a result of attending the presentation.

- See tips for writing learning objectives.

### Advice on What Makes a Good Abstract

• Relevance. Your project should be innovative and of current interest to pharmacy practitioners.

• Creativity. Originality and uniqueness make the topic more enjoyable.

• Scientific Merit. A well-designed project that clearly states methods, results and conclusion.

• Quality Research. Project objective is clearly defined. Methods are thoroughly described in adequate detail. Data/results are reported and analyzed appropriately. Conclusions are consistent with the study/project objectives and results.

• Impartial, scientific attitude. Abstracts must be non-promotional in nature and without commercial bias. Abstracts that are written in a manner that promotes a company, service or product will not be accepted.

Abstract guidance materials adapted from: American Society of Health-System Pharmacists, Mountain States Residency Conference, and Western States Residency Conference. Abstract examples de-identified but used with author permission.

**Abstract Example 1:**

Sally Resident
John Preceptor; Jill Director; David Provider
Northwest Health System, Stumptown, Oregon

Time to therapeutic range between non-obese, obese, and extremely obese patients treated with a heparin infusion

With the rising prevalence of obesity in the United States, there is a need to better understand pharmacokinetics in obese patients. Pharmacokinetic parameters change, but a strict linear correlation does not exist increase in BMI. Current literature on this topic is sparse and conflicting. The conclusions reached by studies include both delayed and reduced time to reaching therapeutic anticoagulation, as well as no difference between these populations. Heparin dosing protocols at Community Health System for venous thromboembolism, acute coronary syndrome, stroke, or left ventricular assist device and advanced heart failure utilize weight based dosing with a maximum initial dose. The purpose of this study is to evaluate safety and effectiveness of heparin dosing protocols in obese and extremely obese patients compared to non-obese patients. This is a single institution retrospective chart review of patients initiated on the hospital protocol for venous thromboembolism, acute coronary syndrome, stroke, left ventricular assist device, or heart failure from June 2013 through December 2014. Eligible patients $\geq$ 18 years old will be analyzed within three groups based on body mass index (BMI kg/$m^2$). Those groups are non-obese (BMI<30 kg/$m^2$), obese (BMI 30 kg/m2-39.9 kg/$m^2$), and extreme obesity (BMI $\geq$40 kg/$m^2$). Patients will be identified through the use of a heparin protocol, and data retrieved from the electronic health record. Further investigation into charts will be completed for necessary additional information. Descriptive statistics will be used to describe the baseline characteristics of the study population and efficacy of the heparin protocol in each group. An ANOVA will be used to compare differences in outcomes between non-obese and obese, and non-obese and extremely obese patients. A p-value <0.05 will be considered statistically significant. Results and Conclusions will be shared when the project completed. (IRB approved)

Describe the safety and effectiveness of unfractionated heparin protocols in obese patients compared with non-obese patients.

Anticoagulation; Pharmacokinetics/pharmacodynamics; Acute internal medicine/general pharmacotherapy

**Abstract Example 2:**

Sal Resident
John Preceptor; Jill Director; David Provider
Northwest Health System, Stumptown, Oregon

Integration of computerized provider order entry with a parenteral nutrition automated compounding system

The use of parenteral nutrition (PN) is used as a vital component to the therapeutic approach for adult and pediatric patients with nutritional needs in the inpatient setting. It has been reported that approximately 300,000 hospital stays annually in the United States involve the prescribing and administration of PN. However, the Institute for Safe Medication Practices (ISMP) has stated that PN is considered a high-risk medication and can be harmful to patients if errors are to occur. As a result, multiple guidelines have been published in hopes to mitigate errors that can arise within the PN use process. Despite the existence of guidelines, errors still occur within the PN process. A study by MacKay et al, demonstrated the impact of computer provider order entry (CPOE) in decreasing error rates in the PN process. The purpose of this project is to evaluate the efficiency and safety of minimizing the transcription process for PN orders by integrating CPOE with a PN compounding device. This is a single center, retrospective, observational, nonrandomized analysis of patients of any age receiving PN orders at a large academic tertiary care hospital. Data was collected through a review of orders in the electronic health record (EHR). Patients who received PN orders from October 2017 to March 2018 was collected for pre and post intervention implementation analysis. The primary outcome is error rates made during the transcription process for PN orders pre and post EHR and PN compounder integration. Secondary outcomes include cost savings, wastage, PN order verification time, final batch verification time, and provider modification errors. A survey was also provided to PN pharmacists to assess the impact of the intervention on the PN workflow process. This study has been approved by the institutional review board. A total of 1,438 and 1,180 adult and pediatric PN orders were assessed during the pre and post-intervention period respectively. A total of 28 transcription errors among 1,438 PN orders were observed pre-intervention as compared to 6 transcription errors among 1,180 PN orders post-intervention. The count of total transcription errors post-intervention was 86% lower than expected ($\beta = -1.99$, $p<0.001$). Additionally, transcription errors appeared less frequent post-intervention ($p<0.01$). Provider modification errors also appeared less frequent post-intervention, but could not be verified statistically ($p>0.20$). Times observed for completing each task were pooled among the surveyed pharmacists, before and after the intervention, and Student t-tests identified decreases in PN order verification time (pre: 67s ± 4s, post: 19s ± 2s, $p<0.0001$) and mean final batch verification time (pre: 104.3s ± 9.6s, post: 33.1s ± 4.4s, $p<0.0001$). A total of 6 PN bags were wasted due to transcription errors leading to a loss of approximately $466.44. No PN bags were reported to be wasted post-intervention analysis. A positive impact on workflow was assessed via staff surveys. The integration of CPOE and a PN automated compounding can lead to a reduction in transcription errors, pharmacist verification time, wastage, cost, operational efficiency, and overall patient care.

Discuss the literature surrounding error rates with parenteral nutrition orders.
Describe the methods and results involved in integrating computerized provider order entry with a parenteral nutrition compounding device.

Informatics/automation; Critical care/cardiology/emergency medicine/nutrition support; Medication safety/quality improvement