

# Poster Abstract Examples

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## Descriptive Report Poster Abstract

**PLEASE NOTE:** Do not include the field names – **Purpose, Methods, Results, and Conclusion** – in the body of your abstract.

**Title:** Assessing Pharmacist Competency for Processing Adult Chemotherapy Orders in a Community Hospital

**Purpose:** The avoidance of errors in the processing of chemotherapy orders is an important component in the pharmacy department’s medication-use safety initiatives. Chemotherapy order processing was identified as a needed competency assessment to heighten awareness in recognizing and preventing chemotherapy medication errors. This project was designed to uncover and correct gaps in the knowledge that pharmacists needed for the safe processing of chemotherapy orders at a community hospital.

**Methods:** A pharmacist with advanced training (specialty residency) in oncology wrote a certification module and a competency assessment examination. The certification module included readings, the hospital policy on processing chemotherapy orders, and a chemotherapy order-processing checklist designed for the pharmacist. The assessment examination used three actual patient chemotherapy orders, each with specific patient demographics, laboratory values, and imbedded errors. Pharmacists taking the examination needed to identify the errors to process the orders safely. All staff pharmacists were required to complete the examination and instructed to work independently. A score of 100 percent was required to pass the competency assessment.

**Results:** Twelve pharmacists completed the module. Seven pharmacists correctly identified all the medication order errors in the competency assessment examination. Five pharmacists needed additional training in their identified areas of deficiency and took a customized assessment examination to address those areas specifically. All five pharmacists successfully completed the second assessment examination. The pharmacy director and clinical coordinators felt that the competency assessment examination was successful in identifying gaps in knowledge. The pharmacists indicated that they were more confident processing chemotherapy orders after successful completion of the module and competency assessment.

**Conclusion:** Competency assessment was helpful in identifying and correcting knowledge gaps and may be useful in medication order processing of high risk medications as part of the pharmacy department medication-use safety plan.

## Evaluative Study Abstract

**PLEASE NOTE:** Do not include the field names – **Purpose, Methods, Results, and Conclusion** – in the body of your abstract.

**Title:** Effect of Carvedilol or Atenolol Combined with a Renin-Angiotensin Blocker on Glycemic Control

**Purpose:** Beta-blockers decrease cardiovascular risk in patients with hypertension and diabetes mellitus (DM). However, their use has been associated with increased fasting glucose and HbA1c levels in these patients. The purpose of this study was to determine whether carvedilol or atenolol had more favorable glycemic effects on patients with diabetes and hypertension who were also using a renin-angiotensin (RAS) blocker, which is known to improve glycemic control.

**Methods:** The institutional review board approved this open-label, randomized, and controlled group study. Men and women aged 18-65 provided informed consent and enrolled if they had Type 2 DM and stage 1 or 2 hypertension controlled by medication. Patients taking a non-ocular beta-blocker within the past 3 months and those with pulmonary, cardiovascular, or kidney disease were excluded. Antihypertensive treatment must have included an RAS blocker, such as an angiotensin-converting enzyme (ACE) inhibitor or angiotensin II receptor blocker (ARB). Following a washout period to discontinue all other antihypertensive treatments, 48 patients were randomized to receive either carvedilol (n equals 25) or atenolol (n equals 23) for 24 weeks. Study medication was titrated from carvedilol 6.25 mg twice daily and atenolol 12.5 mg twice daily to a maximum dose of 25 mg and 100 mg twice daily, respectively, at two-week intervals toward target blood pressure levels (less than or equal to 130/80 mmHg). The primary outcome measure was a change from baseline in HbA1c after 6 months of treatment. Secondary outcomes included changes in blood pressure and heart rate. It was determined that 23 participants per treatment group would yield 80 percent power to detect a difference of 0.20 percent between groups for the primary outcome. Data are expressed as means with 95 percent confidence intervals, and evaluation of primary and secondary outcomes utilized analysis of variance.

**Results:** The mean difference between carvedilol and atenolol in the change in HbA1c from baseline was 0.21 percent (95 percent CI, 0.04 percent to 0.27 percent, P equals 0.004). HbA1c levels increased with atenolol administration (0.23 percent; 95 percent CI, 0.08 percent to 0.31 percent, P less than 0.001) but did not change significantly with carvedilol (0.02 percent; 95 percent CI, -0.06 to 0.08 percent, P equals 0.65). Effects on blood pressure and heart rate were comparable.

**Conclusions:** Use of carvedilol in the presence of RAS blockade did not affect glycemic control. However, atenolol was associated with a slight increase in HbA1c after 6 months of treatment. The clinical significance of these effects must be determined in larger, long-term clinical trials.

## Case Report Abstract

**PLEASE NOTE:** Do not include the field name “**Case Report**” in the body of your abstract. *The entire abstract is entered in the Case Report Field.*

**Title:** Potential Risk of Transdermal Alcohol Application in Patients on Warfarin

**Case Report:** This case series illustrates the potential risk of transdermal alcohol application in patients on warfarin. Patient 1 is being treated with warfarin for heart failure. The patient has a goal INR between 2 and 3 and has had therapeutic INRs at the last twenty-two clinic visits. He presented to clinic with an INR of 4.2. He denied symptoms of heart failure exacerbation, changes in diet, or changes in medications. The patient reported that he had been applying rubbing alcohol to a back injury. At this visit, patient was instructed to discontinue rubbing alcohol, hold two doses of warfarin, and then resume his current warfarin regimen. He returned to clinic four weeks later and his INR was 2.3. His INR remained in the therapeutic range for the next three follow-up visits. Patient 2 has been prescribed warfarin secondary to an atrial valve replacement and has a goal INR range of 2 to 3. After six consecutive therapeutic visits, the patient presented with an INR of 3.2. She denied medication or diet changes, but reported that she had applied rubbing alcohol to sore legs several days prior to the clinic visit. At this visit she was told to discontinue the rubbing alcohol, hold one dose of warfarin, and then resume her previous regimen. The patient returned to clinic four weeks later and her INR was 1.8. Patient’s INR remained in the therapeutic range for the next five visits. Patient 3 is being treated with warfarin for recurrent venous thromboembolism (VTE) and protein S deficiency. Her therapeutic INR range is 3.0 to 3.5 due to recurrent VTE despite therapeutic INR levels. Her INR in clinic was 4.3 following a recent dose increase of her warfarin. She reported that she had been using four ounces of hand sanitizer daily. She was asked to hold her warfarin dose that night, and then resume her current regimen. She returned to clinic seven days later and her INR was 3.7. Despite being counselled on the risk associated with the alcohol-based hand sanitizer, she continued to use approximately four ounces daily. Over the next two months the patient’s INR fluctuated greatly with all but one INR in the supratherapeutic range. The patient finally discontinued use of the instant hand sanitizer and her INR fell to 2.6. Although the patient’s INR was never completely stable the two months following discontinuation of the hand sanitizer, the INR fluctuations were more predictable. As this case series suggests, the application of transdermal alcohol has the possibility to affect INRs in patients being treated with warfarin. Although more study is needed to further elucidate this interaction, it is important for providers to inquire about the topical application of alcohol and alcohol-containing products.