

# Critical Credentialing during COVID-19: A program for medication infusion preparation in Intensive Care Units

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## Introduction

Workforce challenges within Intensive Care Units (ICUs) arising from COVID-19 surges resulted in an opportunity to introduce infusion preparation by pharmacy support staff.

## Objective

To develop an education and credentialing program for pharmacy support staff to prepare continuous and intermittent medication infusions within adult ICUs.

## Action

A working group of key pharmacy stakeholders was established to design the program and develop the workshop and assessments. An Expression of Interest was released to pharmacy technician staff and pharmacy/pharmaceutical science students working in the pharmacy department and COVID-19 vaccination clinics.

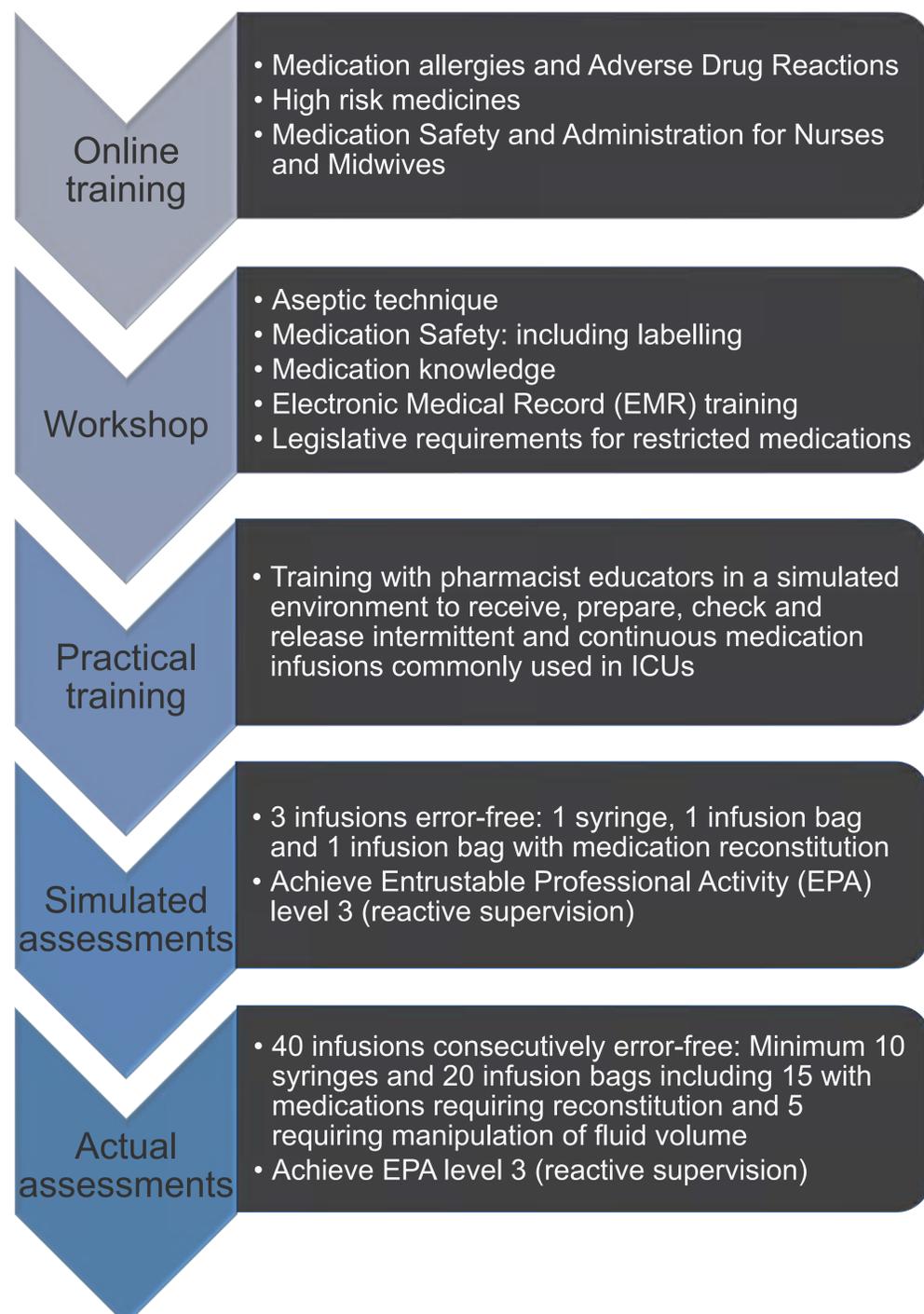


Figure 1. Medication infusion preparation program key components

A quick reference guide with 95 commonly used continuous and intermittent medication infusions with preparation instructions was developed for staff training and working in the simulated and ICU environments. Actual assessments were undertaken in the ICUs under one-on-one supervision with pharmacist educators with 24 months minimum aseptic compounding experience. Assessments incorporated calculations, labelling, aseptic technique, record keeping and timeliness for medications prepared for patient use as ordered by ICU nursing staff through the EMR (Figure 1).

## Evaluation

Thirty pharmacy support staff expressed interest in partaking in the program. Staff with previous aseptic compounding experience were prioritised for practical training and assessment, whilst staff with less experience were allocated additional time in the simulated training environment. Due to rostering and other limitations, not all staff progressed to actual assessments in the ICUs.



Twenty pharmacy support staff were credentialed over five months and subsequently able to prepare infusions independently in the ICUs: ten pharmacy technicians, six pharmacy students and four pharmaceutical science students. Prior aseptic compounding experience was limited to COVID-19 vaccine preparation in 13 (65%) of credentialed staff.

Credentialed staff were invited to participate in a survey, with a response rate of 70% to 85%. Respondents reported satisfaction with the training program, assessments and support provided by the Pharmacist Educators (Figure 2).

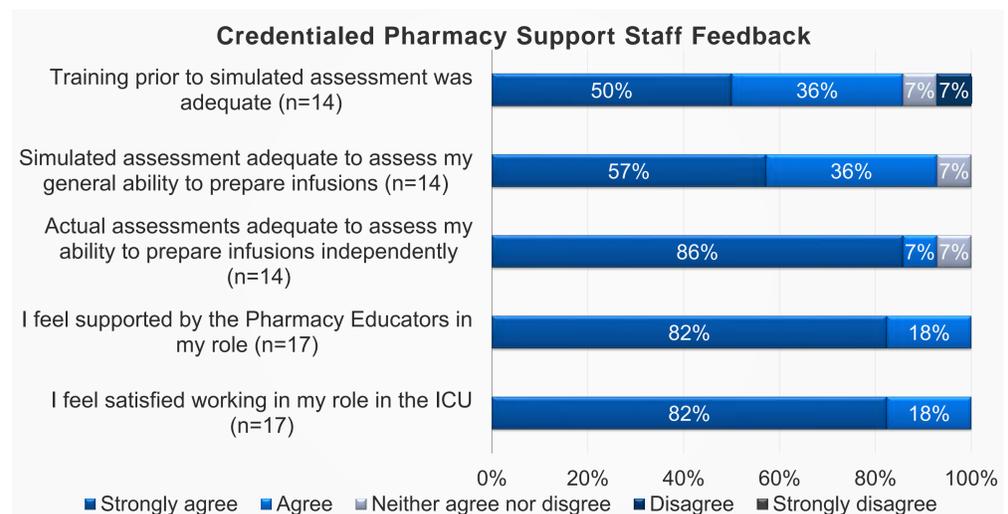


Figure 2. Pharmacy support staff feedback

## Discussion

A multi-modal credentialing program to support introduction of a novel and advanced role for pharmacy support staff was developed and safely implemented. A high staff satisfaction rate was demonstrated across key components of the program. Learnings could be applied to future role expansions for pharmacy support staff for pharmacy technicians and pharmacy students.

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