

PHOTOGRAPHIC CONTROL IN PARENTERAL NUTRITION: ADDED VALUE COMPARED TO GRAVIMETRIC AND VISUAL INSPECTION

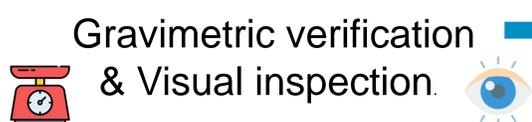
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BACKGROUND AND IMPORTANCE

According to the Institute for Safe Medication Practices (ISMP), **parenteral nutrition (PN)** is a **high-risk medication** due to its complex composition and preparation process.

Standard quality controls include:



Gravimetric verification
& Visual inspection.

Some **errors** may
remain undetected by
these methods.

AIM AND OBJECTIVES

The objective is to evaluate the **effectiveness of a photographic process control system in PN compounding** in a hospital pharmacy and to determine its added value compared with gravimetric and visual inspection.

The implementation of a photographic process could provide an **additional layer of traceability, reinforce safety and reduce risk of medication errors.**

MATERIALS AND METHODS

From **May to September 2025.**

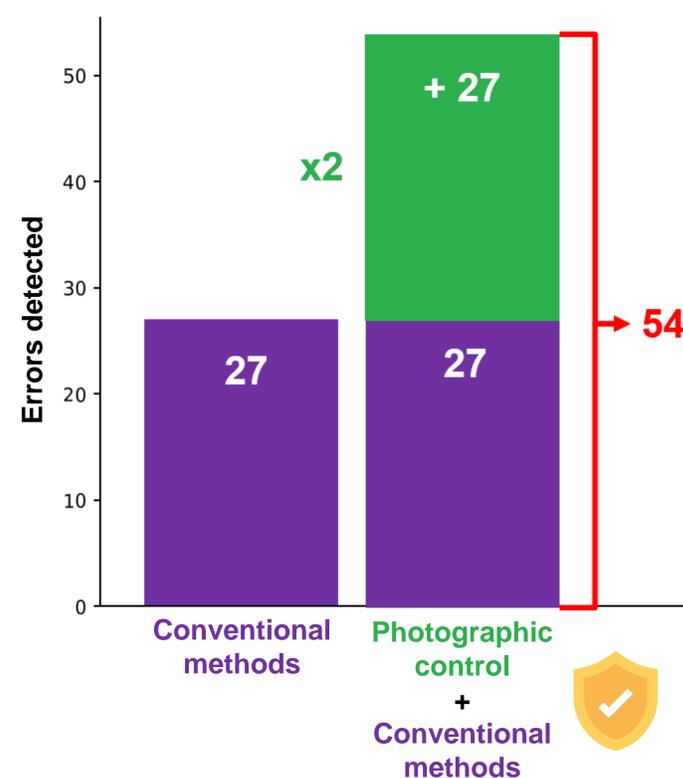
Photographic documentation throughout **all steps of the compounding process.**

Photographs were reviewed to **detect discrepancies** not identified by conventional controls.



RESULTS

	OVERALL	ADULT POPULATION	PEDIATRIC POPULATION
PN admixtures compounded, n	2566	1564	1002
Mean admixtures per month, n	–	313	200
Mean admixtures per day, n	–	10.4	6.7
Total errors detected, n (%)	54 (2.1%)	27 (1.7%)	27 (2.7%)
Errors detected only by photographic control , n (%)	+ 27 (50.0%)	+ 12 (44.4%)	+ 15 (55.5%)
Errors detected by conventional methods , n (%)	27 (50.0%)	15 (55.6%)	12 (44.5%)



CONCLUSION AND RELEVANCE

Photographic process control **improved error detection in PN**, complementing gravimetric and visual methods. It **enhanced traceability and provided a "proof-of-process" for quality assurance.** These results support its integration as a feasible tool to increase PN safety in hospital pharmacy practice.

