

EVALUATION OF PARENTERAL NUTRITION COMPOUNDING THROUGH A CHECKLIST.

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BACKGROUND AND OBJECTIVES

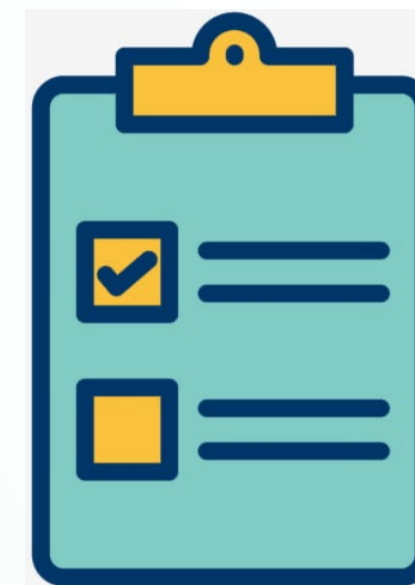
Parenteral nutrition (PN) is a high-risk medication and its compounding process that must be controlled and evaluated periodically.

Pharmacy staff must present appropriate technical skills and knowledge of aseptic technique and preparation aspects.

AIM AND OBJECTIVES

To objectively **evaluate the PN compounding process** by pharmacy staff, using a specifically designed *checklist*.

MATERIAL AND METHODS



Checklist contained **57 items**: 29 related to aseptic technique and 28 regarding compounding. Each item scored 1 point; final evaluation score was calculated on a 0-10 scale.

Pharmacy technicians were divided: with experience (PN compounding for > 6 months) and without experience. Each one was evaluated by a pharmacist through direct visual inspection.



RESULTS

CHECKLIST SCORE	Global (average; min; max)	Aseptic technique (average; min; max)	PN Compounding (average; min; max)
With experience (19)	7.9±1.09; 5.2; 9.2	8.5±1.14; 5.9; 10	7.3±1.53; 3.6; 9.4
Without experience (11)	7.2±1.0; 5.9; 8	8.9±0.5; 7.9; 9.7	4.8±1.5; 2.3; 7
Total (30)	7.65±1.0; 5.2; 9.2	8.6±0.94; 5.9; 10	6.3±1.92; 2.3; 9.4

Error prevalence was 18% (307)

Mix incompatible electrolytes (P-Ca, P-Mg, Mg-Ca) ; 4,23%

Electrolyte addition sequence ; 10,70%

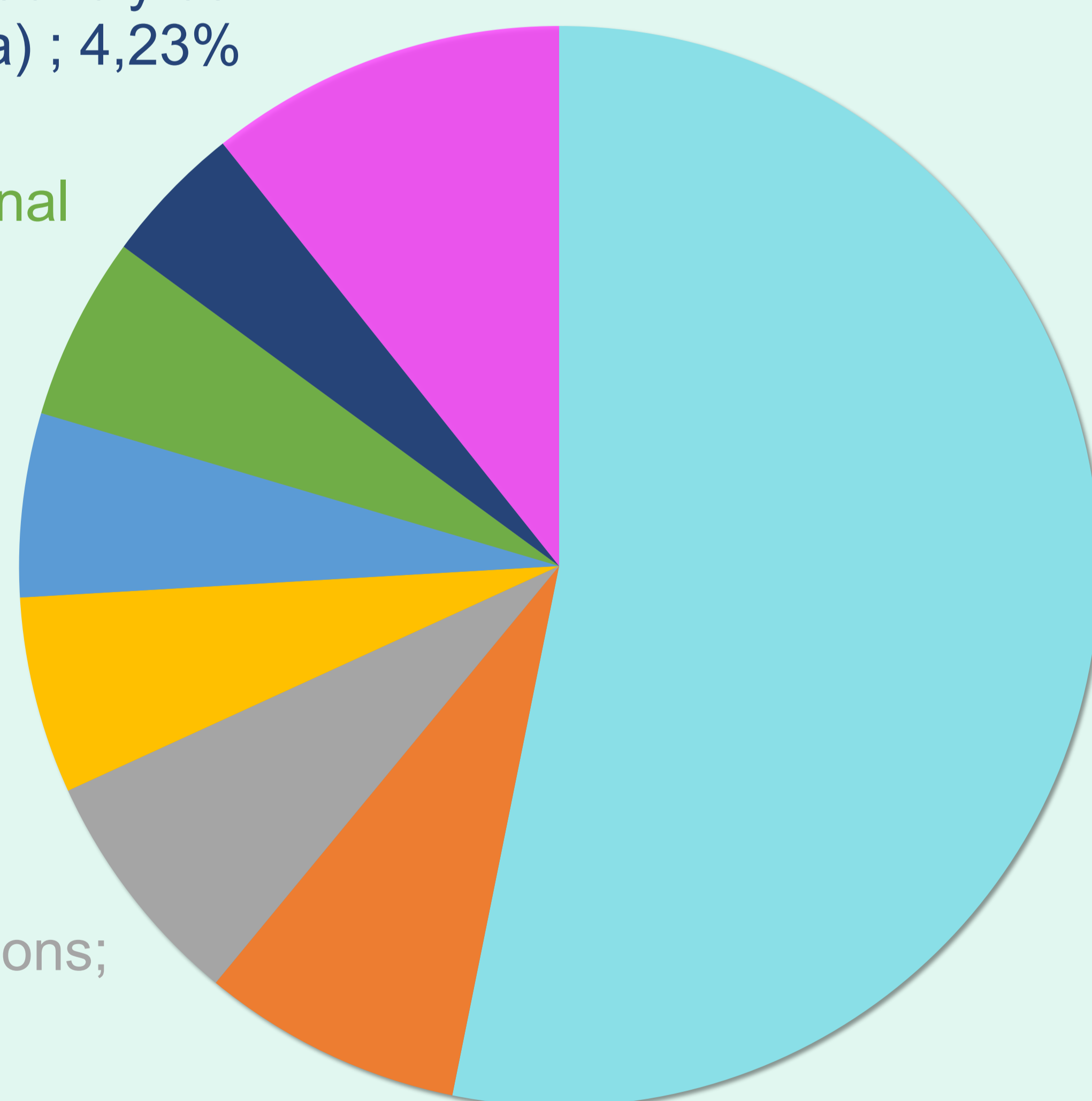
Inspect intermediate/final admixtures ; 5,50%

Mix glucose and lipids without aminoacids ; 5,50%

Renew /Disinfect gloves; 5,90%

Mixing after additions; 7,20%

Stable intermediate admixtures ; 7,80%



Other errors

CONCLUSION AND RELEVANCE

Evaluation of PN compounding through a specific *checklist* allowed us to:

- ✓ **Objectively detect errors** and areas of improvement.
- ✓ Reveal a **lack of training in compounding aspects**, more than in aseptic technique, that was greater in those PT without experience.
- ✓ Plan to **implement a specific training plan** to improve quality/safety of PN.