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# Patient Safety on the Preparation of Intravenous Medication in Brazilian Pediatric Cardiology Units



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## Purpose

- The medication system in pediatric units is complex.
- It is one of the focal point that deserves attention, since it involves different processes like standardization, prescription, distribution and administration.
- This study was considered three processes of the medication system:

**Prescription   Dispensation and Distribution   Preparation and Administration**

**Objective:** identify the Nursing assistance quality in the process of intravenous medicine preparation in cardiology pediatric units of a public Brazilian hospital.

## Methods

Analytical Study	Cross-Sectional design	Quantitative approach			
<ul style="list-style-type: none"><li>- 3 cardiology pediatric units of a public hospital specialized in cardiovascular and pulmonar disease at Fortaleza/Ceará, Brasil.</li><li>- Data collection: systematic observation on the Nursing professional realizing the preparation process os intravenous medication.</li><li>- The observation: checklist with nine operations related to preparation of medication.</li></ul>					
237 preparations	140 professionals (nurses and nursing technicians)				
SPSS version 20	Positivity Ratio results: adequadely conducted operations				
The Nursing assistance quality:	Desirable (100%)	Proper (90-99%)	Safe (80-89%)	Borderline (71-79%)	Low (≤ 70%)
The study was approved by the ethics committee.					

## Results

1- Check the medication label with the prescription (90,7%).

2 – Verify the integrity of the wrapping (92%).

3- Inspect the medicine bottle to observe any possible particular, color alteration, cracks and or leak" (76,6%).

4- Observe the medicine expiration date (76,6%).

5 – Disinfect the ampoule bottle (49,8%).

6- Medication reconstructed in distilled water or saline solution, respecting the principles of hospital infections prevention (78,3%).

7- prepared medication for administration of continuous infusion (78,5%).

8 - Identify the prepared medication (94,9%).

9- Properly discard or use material during the preparation (99,3%).

- No operation related to the preparation of intravenous medications achieved the Positivity Ratio desirable and safe percentage.
- The preparation of the medications demands the interpretation of the prescription and involves a great amount of specific information on preparation and disposal of residues.

## Conclusion

- The performance on the preparation process of intravenous medication corresponding to unsatisfactory assistance: It is a challenge to lifelong education.
- It is suggested to be offered constant training to the entire nursing team.