Background

Since March 2015 directive publication of country’s health department, parenteral nutrition (PN) must be produced by hospital pharmacists, under pharmaceutical responsibility. How to manage closing periods of the hospital pharmacy unit (HPU) to manufacture individualized formulation of pediatric PN (IFPN) for newborns.

Purpose

Summarize the state of management of HPU closure for IFPN through a survey of hospitals in the country on 2017.

Material and methods

A survey with oriented questions according to answers was developed.

- General questions (Healthcare Establishment (HE) type):
  - General Hospital Center (GHC) or University Hospital Center (UHC),
  - Maternity level (classed 1 to 3 in our country),
- Alternatives solutions in case of no production during HPU closing period.
- If IFPN production on weekends, different questions about formulation validation, production and controls.

Results

19 responses were received

- HE Type : 17 UHC (89.5%) and 2 GHC (10.5%), 95% with neonatal intensive care unit (n=18)
- IFPN during closing period : 63.2% report NO (n=12), 36.8% report Yes (n=7),

  - Major Alternative solution (100%, n=12) = IFPN produced before closure period (e.g. on Friday)
  - Others solutions are available if first isn’t possible
    - 83.3% (n=10) use IFPN and Standardized PN (SPN)
    - 25% (n=3) use industrial PN
    - 16% (n=2) use industrial PN with supplementation

  - For HE with PN activity on weekend,
    - 57.1% (n=4) produces IFPN at HPU
    - 42.9% (n=3) in pediatric care unit.

- Organization of PN activity on weekend
  - 60% (n=4) IFPN produced are formulation checked,
  - 100% declare a double visual control during production,
  - 71% (n=5) realize analytics assays (mainly Na and K),
  - 30% (n=2) perform microbiologic assay,
  - 60% (n=4) labelling check and mirage,
  - 60% (n=4) report a pharmaceutical liberation

Conclusion

These results based on statements remain to be analyzed cautiously but trend is no production of IFPN on weekend. In case of preparations, controls on final product allows to provide a quality product for newborns. Compliance with the directive remains difficult, perhaps consensus around SPN with pediatric physicians will make it possible to avoid PN production activity outside the opening period of HPU.

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