

# STANDARDISATION OF DILUTED POTASSIUM INTRAVENOUS SOLUTIONS IN NEONATAL CARE UNITS

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## WHAT WAS IT DONE

A protocol that **standardised** the **prescription, preparation, dispensation** and **administration** of **potassium chloride (KCl)** to **neonates** in our hospital (including preterm >28 weeks of gestation).

## WHY WAS IT DONE

Administration of intravenous KCl produces hyperkalemia and this can result in cardiac arrest and death. For this reason, we wanted to **remove concentrated KCl 2M from neonatal care units**.

## HOW WAS IT DONE



A multidisciplinary team designed **KCl ready-to-use solutions** (expiration date of 7 days):



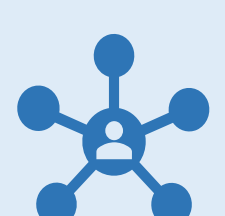
- Glucose 10% 250mL with 5 mEq KCl (**20mEq/L solution**)
- Glucose 10% 250mL with 10 mEq KCl (**40mEq/L solution**)



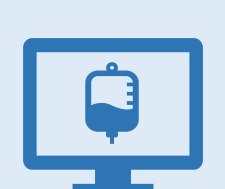
The hospital pharmacy **centralised the preparation** of these solutions.



These solutions were **stocked at all neonatal care units**: Intensive Care Unit, Hospitalized Pediatric Unit and Pediatric Emergency Unit.



Weekly, the hospital pharmacy distributes these solutions and disposes of the expired ones



Only ready-to-use KCl solutions were able to prescribe at the **electronic prescription program**.



A **formation plan** was implemented to train all the professionals involved in neonatal care.

## WHAT HAS BEEN ACHIEVED

**65 patients** have been treated with 20mEq/L solution and only **1 patient** with 40 mEq/L solution; with **no remarkable imbalances in electrolytes**.

**Only 3 incidents** have been registered. All of them were **prescription errors** (solution selection), they reached the patient but **without damage**.

## WHAT IS NEXT

Nowadays, we are developing a stability study of the KCl solutions in order to assess the appropriateness of the expiration date.



<https://www.eahp.eu/gpis/standardisation-diluted-potassium-intravenous-solutions-neonatal-care-units>