

STANDARD FIRST DAY OF LIFE CENTRAL PARENTERAL NUTRITION, EXPERIENCE IN REAL CLINICAL PRACTICE

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Background and importance

Standard parenteral nutrition (PN) solutions should generally be used over individualized PN solutions in the majority of paediatric and newborn patients, including very-low-birth-weight premature infants, starting as soon as possible and within 8h at the latest. In 2021 our Paediatric and Pharmacy Departments designed a standard central PN (CPN) to have ready to use, in order to meet the nutritional needs of most newborn patients in their first day of life.

Aim and objectives

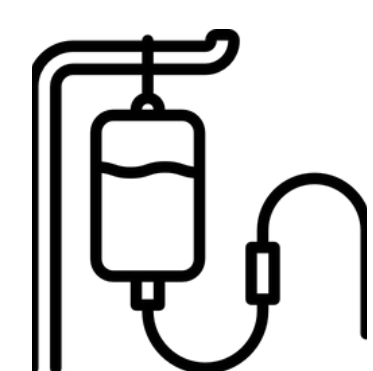
Evaluate the use of the standard first day of life CPN and describe clinical data of patients and the time frame for its start.



Materials and Methods

Observational, retrospective and longitudinal study conducted between March 2022 and September 2022 in a tertiary hospital. A database was designed to record all prepared CPN, their use and data of patients who received them.

Results



55 CPN were prepared and 32 (58.2%) were administered

n= 31 newborns received the standard first day of life CPN

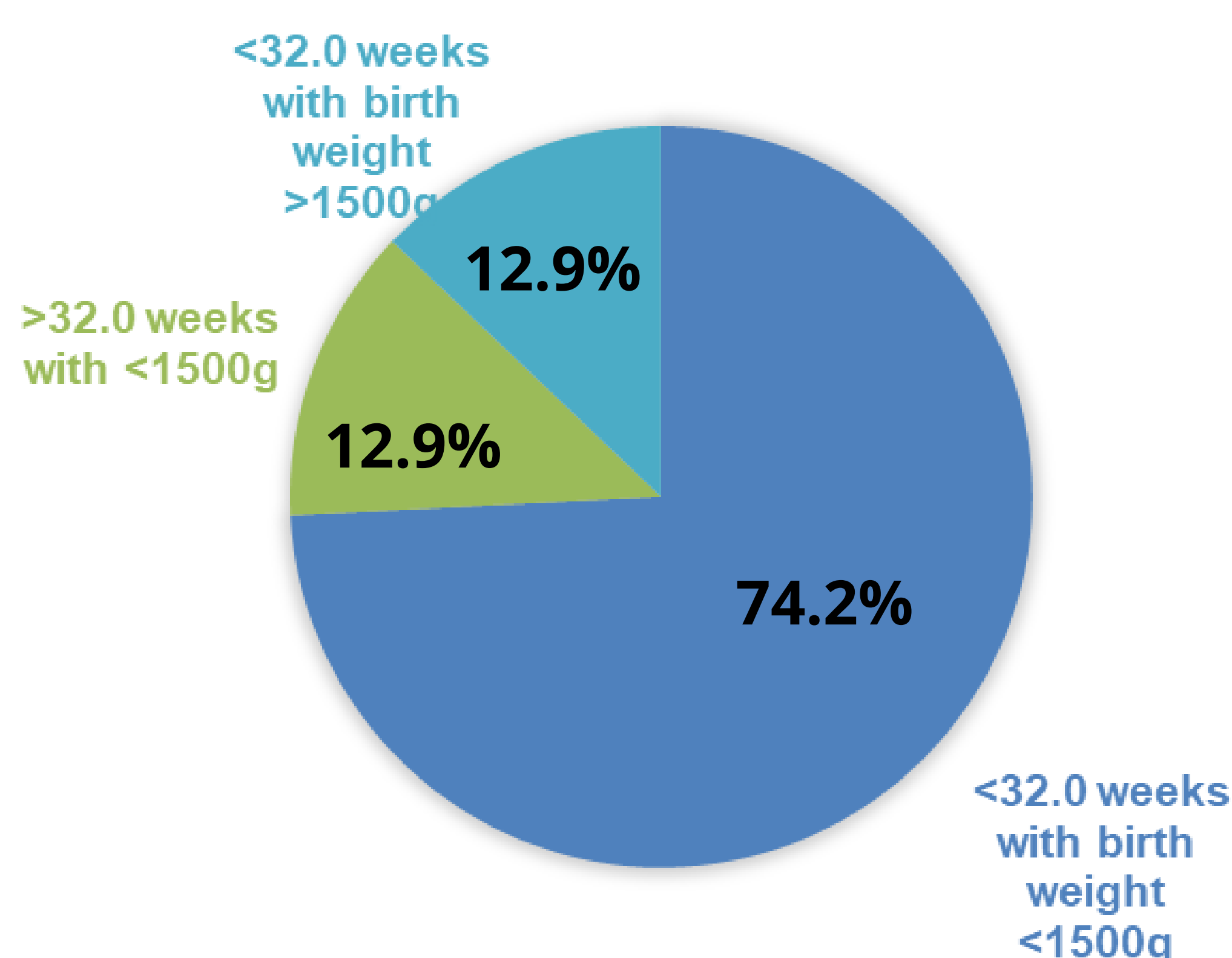
58.1% female

Mean gestational age: 28.5 w

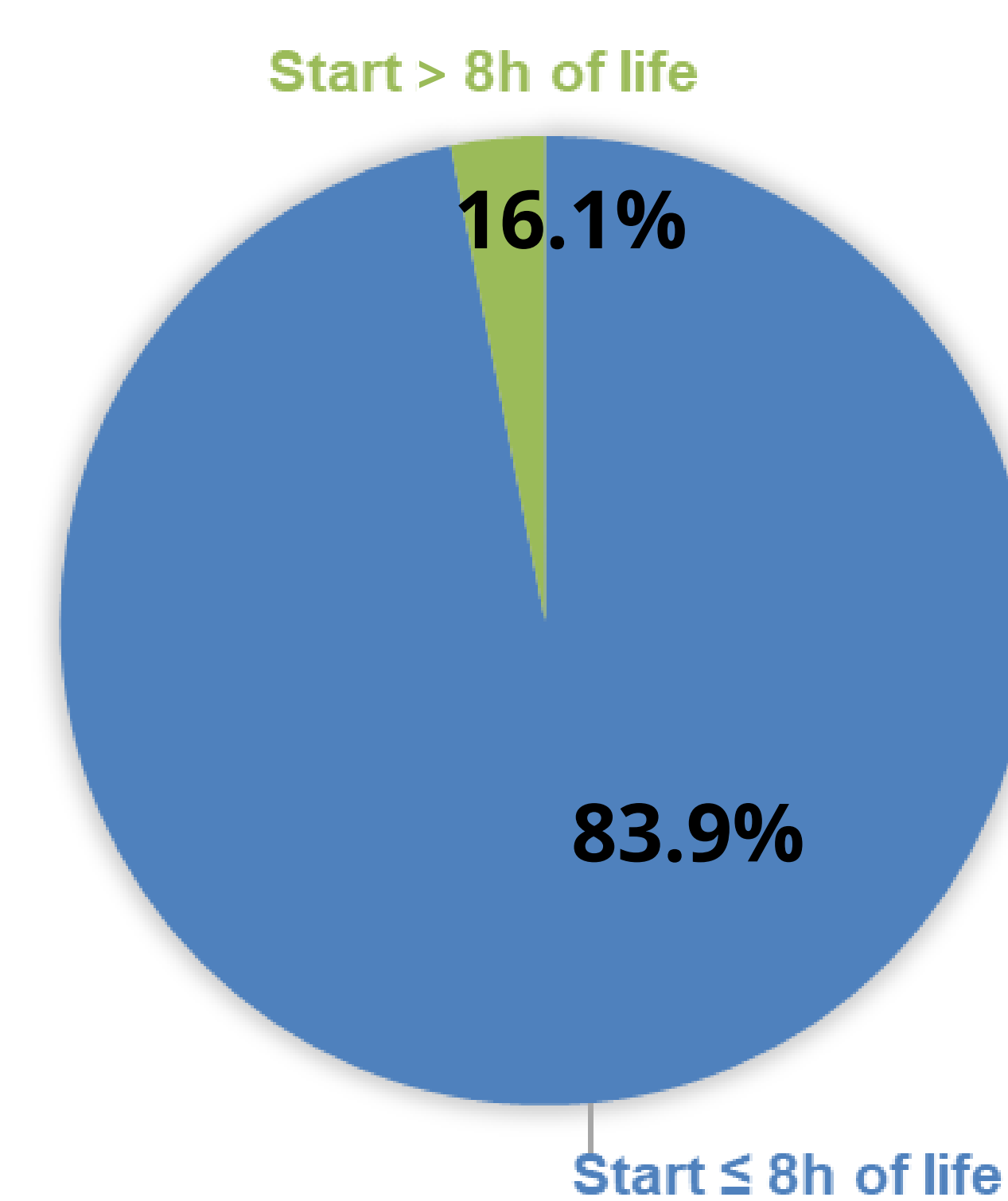
Mean weight: 1138.2 g

38.7% multiple pregnancies

Indication of PN:



Time to start PN:



Mean time to start 6:01 h
(range 1:13 - 22:54 h)

Reason for Start > 8h of life	Percentage
Lack of central line	60.0%
Lack of 2 ready to use CPN for twins	20.0%
Delayed prescription	20.0%

30 patients (96.8%) started trophic feeding with breast milk (maternal or bank) within the first 24 h of life

Conclusions

Standard first day of life CPN ready to use has considerably reduced the time to start PN in newborn patients. However, CPN initiated after 8h of life in 5 patients (mostly due to a lack of central line). Standard first day of life CPN met the nutritional requirements of all newborn requiring PN, not needing to produce individually tailored CPN in any case.

