



Computerized Physician
Order Entry (CPOE)
combined with
Clinical Decision
Support System (CDSS)

Logipren

*A unique e-solution
to protect newborns' and children's health
by reducing the risk of medication prescription errors*



Protecting newborns' and children's health by reducing the risk of prescription errors

- For every 6 manual prescriptions in neonatology, **one medication error***
- Logipren is a prescription management software specifically **designed for neonatal** and paediatric **intensive care** units that meets the specific medical prescription needs of these patients
- Designed by a group of **neonatologists, pharmacists, nurses and IT developers**



- Relies on a **proprietary drug database** (Thesaurus) for neonatal and paediatric intensive care units of over 750 drugs and about 2,200 prescription protocols, including **labelled drugs**, off-label drugs, enteral and parenteral nutrition specifications, which is **continuously updated**

The Thesaurus is built from a variety of scientific publications (manufacturer product specifications, American Pharmacists Association guidelines, neonatal and paediatric scientific society guidelines, and international bibliography) and national guidelines and is **tailored** to each facility's practices

* Horri J et al. Frequency of dosage prescribing medication errors associated with manual prescriptions for very preterm infants. J Clin Pharm Ther 2014;39:637
Campino al. Medication prescription and transcription errors in a neonatal unit. An Pediatr (Barc) 2006;64:330

Logipren, a reliable, simple and effective prescription software




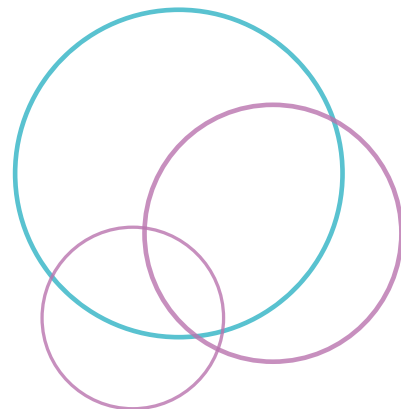
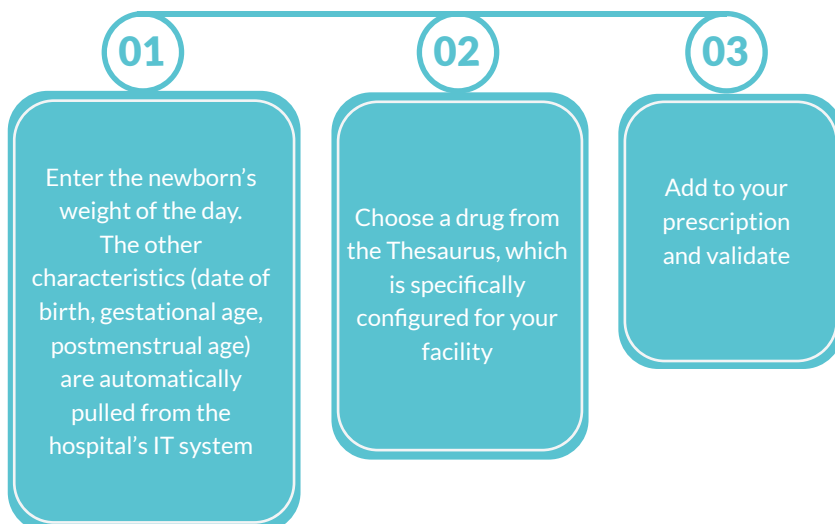
- ➔ Medication prescription assistance, including labelled and off-label drugs, enteral and parenteral nutrition, medical examinations and patient monitoring
- ➔ Patient-tailored dosage calculated automatically according to patient's gestational age, postnatal age, postmenstrual age, body weight and indication. Full elimination of manual calculations
- ➔ Security ensured through prescription guidelines, tailored prescriptions, and alerts
- ➔ To date, more than 6 million prescriptions for 102,000 newborns have been recorded in the database
- ➔ Compliance with the current and upcoming European Union Medical Devices Regulation (CE marking) and General Data Protection Regulation (GDPR)



Logipren, a secure preparation

- The underlying principle in preparing medication for newborns is to minimize the volume of medication administered to the patient in order to maximize remaining available volume for nutrition
- Hidden nutritional intake from medication is automatically accounted for in nutrition prescription
- Instructions for medication preparation are automatically generated in order to avoid manual transcription and to record all caregivers' actions (including reconstitution, predilution, dilution, type and volume of solute, total volume, flow rate, and final concentration)
- Flushing is automatically calculated and accounted for

Logipren, an easy-to-use drug
prescription software in 3 clicks 



Logipren, a tool for neonatal and paediatric medication and nutrition prescriptions

- Logipren calculates the doses, preparation volumes, flow rate for administration, and flushing for each drug and sends all data to the digital care plan

Gentamicin (GENTAMICIN PAEDIATRIC 20mg/2ml sol inj (Zentiva))

Indication(s)
☒ neonatal sepsis
☐ Other

Treatment

Started on Feb 22, 2021 (D10)
Treatment plan must be reassessed between H24 and H72

Notes
PH: 3 to 5.5

Off label benzoates, sulphite Feb 22, 2021 at 18th17 to?

Prescription: 2.5 mg/kg/day, ie 5 mg/kg/does every 48 h, ie 6 mg/does every 48 h by intravenous infusion in 60 min

preparation: Ampoule of 20 mg for 2 ml (10 mg/ml)

(1/1) - Take 0.6 ml add 1.4 ml if D5% to obtain 2 ml = 6 mg (3mg/ml):

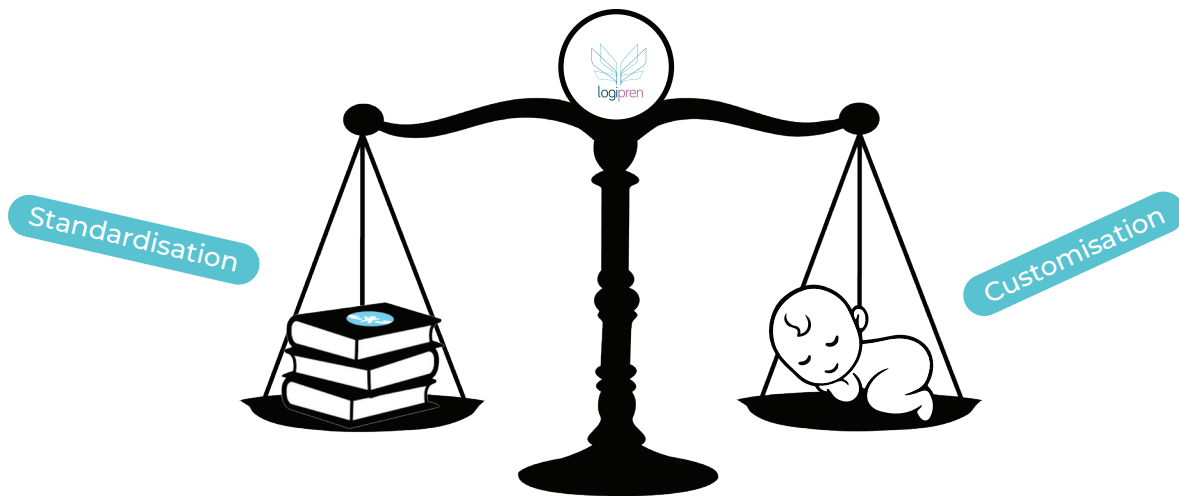
Administration: Administer 2 ml by intravenous infusion in 60 min (2 ml/h) (=6 mg; deviation 0 %)

Flushing: 2 ml of D5% by intravenous infusion in 60 min (2 ml/h)

- Takes into account the *hidden nutritional intake* from prescribed medication
- Recommends *daily nutritional intake* for patient based on ESPGHAN 2018 guidelines
- Updates nutritional intake in *real time*

Daily nutritional assessment (Jul 3, 2020)													
	per os	Drug	Infusion	IPN	Total	Reco.		Per os	Drug	Infusions	IPN	Total	Reco.
Vol	48.2	9.3	50	0	107.6	160- 180 ml/kg/d	Na	3.2	0.1	0.2	0	3.5	2-5 (7) mmol/kg/d
Cal	61.3	1.3	23	0	85.6	45- 120 Kcal/kg/d	k	1.7	0	0	0	1.7	2-3 mmol/kg/d
AA	2.6	0	0.8	0	3.4	2.5 - 3.5 (NP) g/kg/d	Cl	1.9	0	0.3	0	2.2	2-5 mmol/kg/d
CHO	8.4	0.3	5	0	13.7	5.8- 17.3 g/kg/d	Ca	128.1	0	18.8	0	146.9	32-80 mg/kg/d
Lipids	1.9	0	0	0	1.9	3-4 (NP) g/kg/d	P	73.7	0	0	0	73.7	31-62 mg/kg/d
							Mg	11.2	0	2.5	0	13.7	2.5-5 mg/kg/d
Vit D	0	0	0	0	0	200-1000 (NP) IU	Zn	1.26	0	0.1	0	1.36	0.4-0.5 mg/kg/d
Ca/p: 1.99 Cal/AA: 21.5 Reco.: ESPGHAN/ESPEN/ESPR/CSPEN Guidelines on pediatric parenteral nutrition. Clin Nutr.2018													
Alarms													
▲ Total intake of calcium > 140 mg/kg/d (146.9 mg/kg/d)													
▲ Total intake of Magnesium > 10 mg/kg/d (13.7 mg/kg/d)													
▲ Total intake of Zinc > 1 mg/kg/d (1.36 mg/kg/d)													





Standardisation



Recommendations

- Manufacturer product specifications
- American Pharmacists Association guidelines
- Neonatal and paediatric scientific societies guidelines
- International bibliography
- National guidelines
- Hospital protocols

Alerts



- Unit dose
- Daily dose
- Calculated unit dose
- Infusion time
- Renewal of loading dose
- Concentration of the final solution
- Administration interval
- Non-compliance of the proposed dose with the patient's characteristics

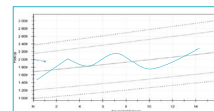
Customisation



Hospital
configuration



Identification and updates



Curves,
daily weight,
Z-score,
height,
head circumference



Milk prescription,
supplementation,
administration,
composition analysis



Individualised
parenteral nutrition

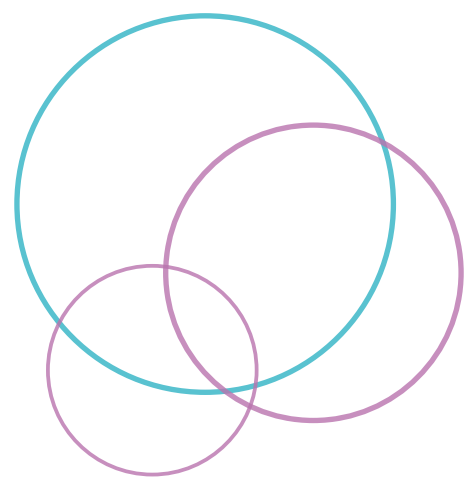
→ Connectors providing data exchanges with:

- **Patient Identification** System (including patient's localisation within the hospital)
- LDAP (Lightweight **Directory** Access Protocol) to identify authorised users
- **Electronic Medical Records**
- Other connectors for specific applications and robots (**parenteral nutrition**, **milk bank**)

- Ongoing **discussion** about protocols/procedures
- **Advice** from fellow neonatologists and paediatricians
- **Sharing** of experience and knowledge
- **Research** on anonymised database of more than 6 million prescriptions (from 102,000 newborns)
- **Comparison** of practices

→ The main benefits of Logipren as an e-prescription software are:

- Decrease in medical errors and associated costs to society
- Improved patient care and health
- Improved efficiency in the care process, time savings, and greater compliance with prescription guidelines
- Greater traceability of data and documentation





Get in touch



contact@logipren.com



+262 (0)2 62 78 19 11



SAS LogipremF
27, Avenue du Dr Jean Marie Dambreville, Terre Sainte
97410 Saint-Pierre - La Réunion



SAS LogipremF
104 boulevard Auguste Blanqui
75013 Paris