

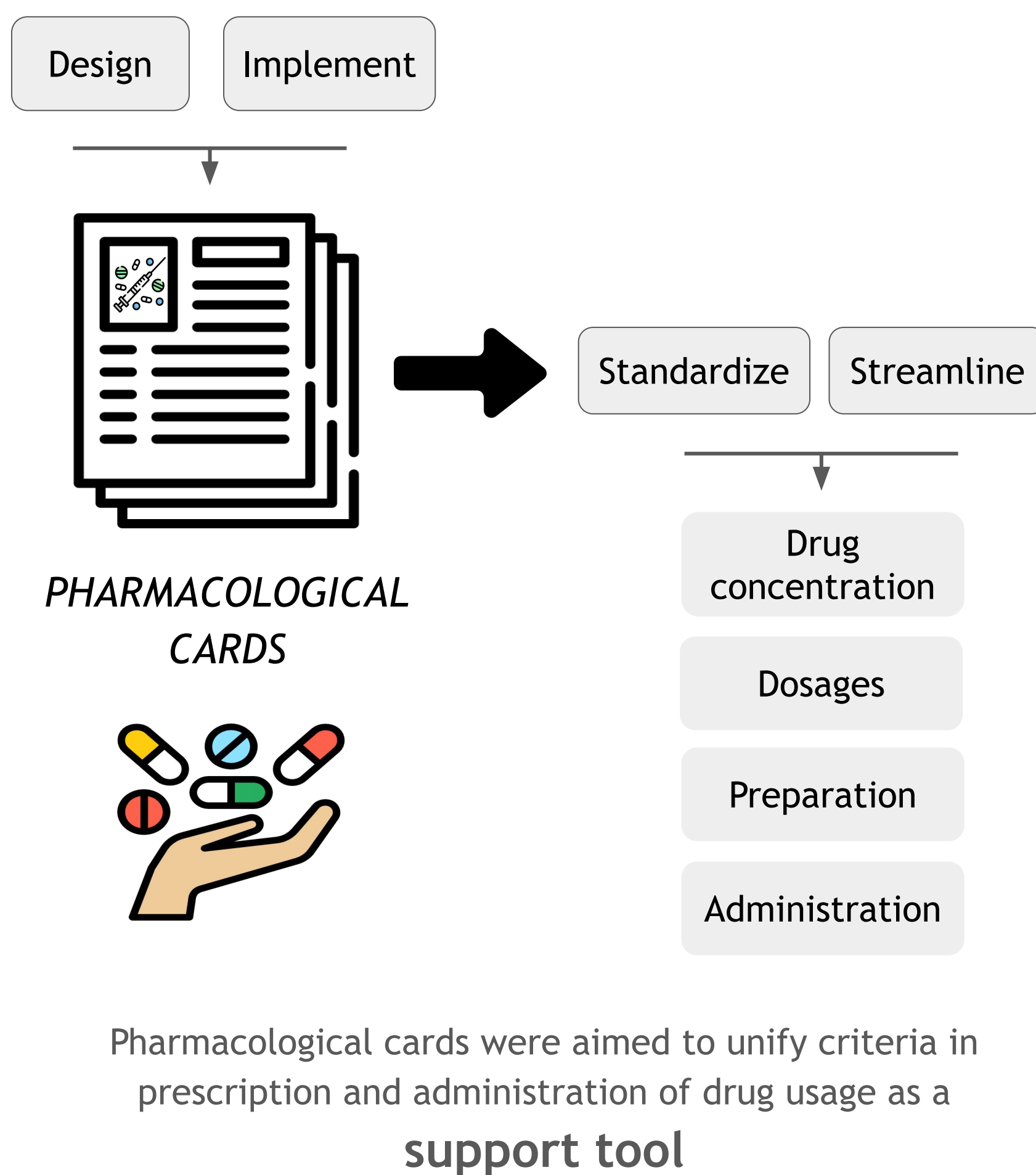
PHARMACOLOGICAL SUPPORT TOOL IN THE PEDIATRIC EMERGENCY ROOM

I. Sacanella Anglès, M. Martín Marqués, H. Suñer Barriga, D. Pascual Carbonell, P. López Broseta, J. Bodega Azuara, M. Vuelta Arce, MA. Roch Ventura, I. Plo Seco, E. Esteve Pitarch, A. García Molina, S. Jornet Montaña, CD. Ciuciu, S. Conde Giner, L. Canadell Vilarrasa

Pharmacy Department, Hospital Universitari Joan XXIII. Tarragona, Spain

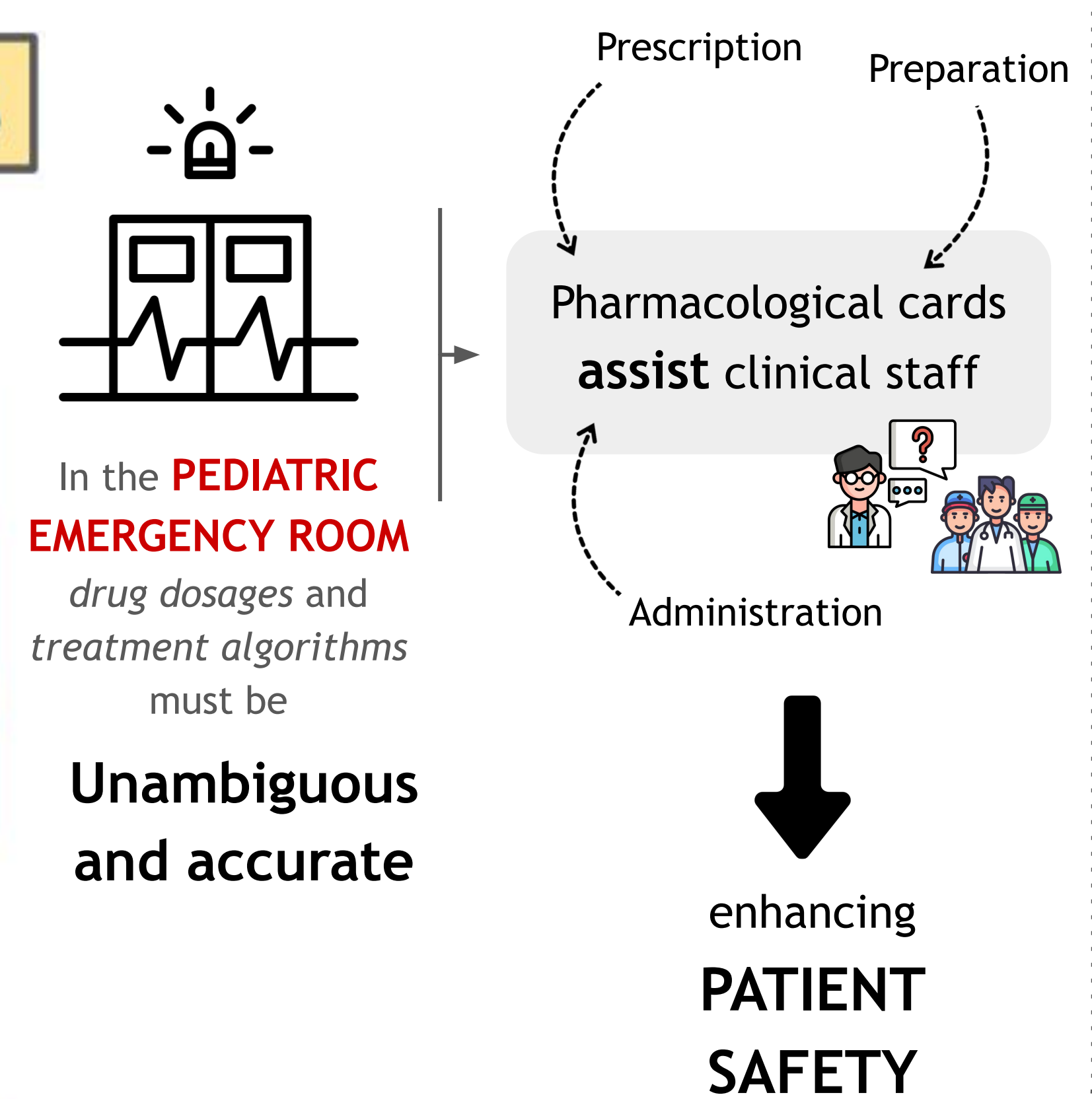
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What was done?



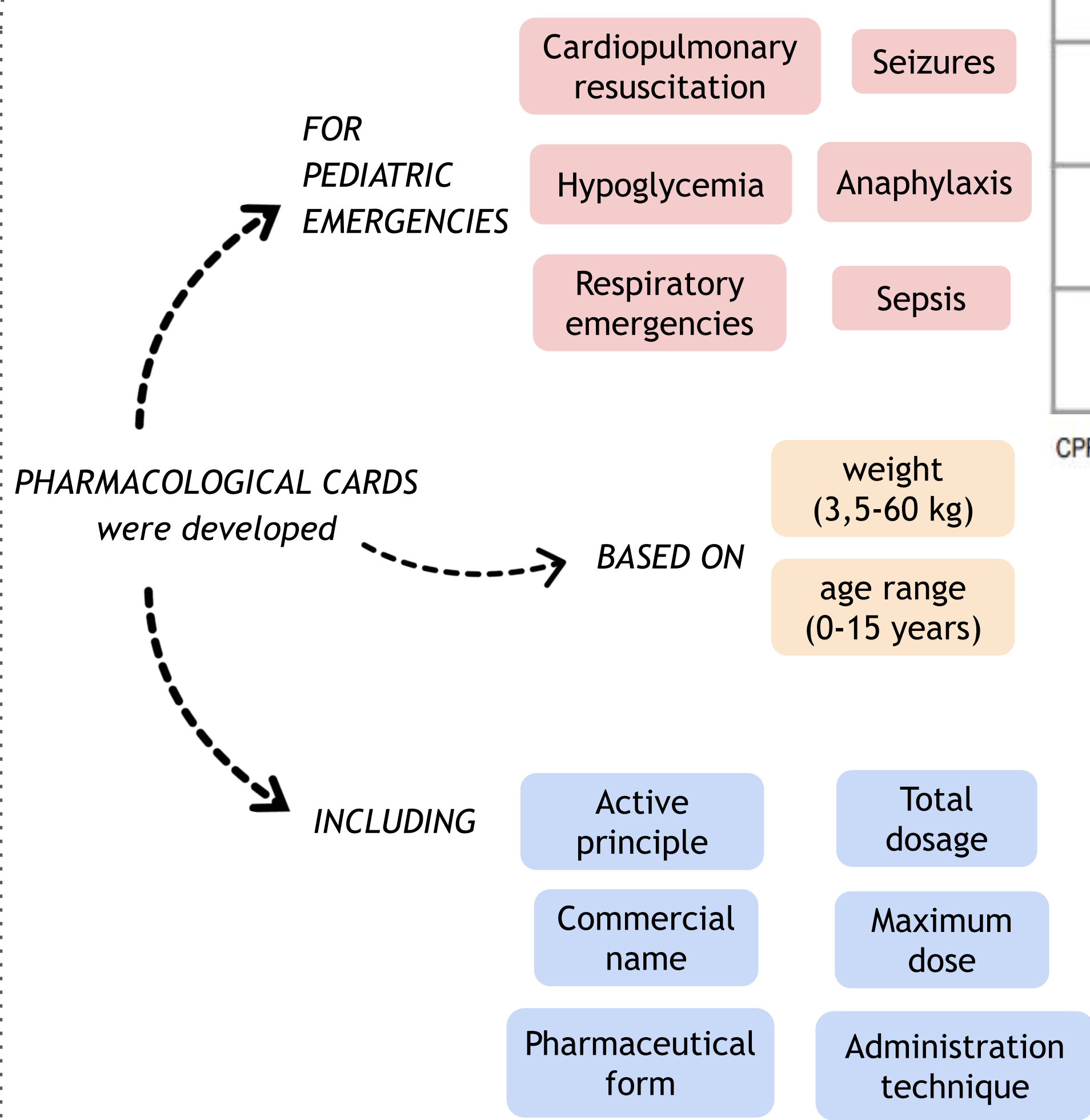
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Why was it done?



3

How was it done?



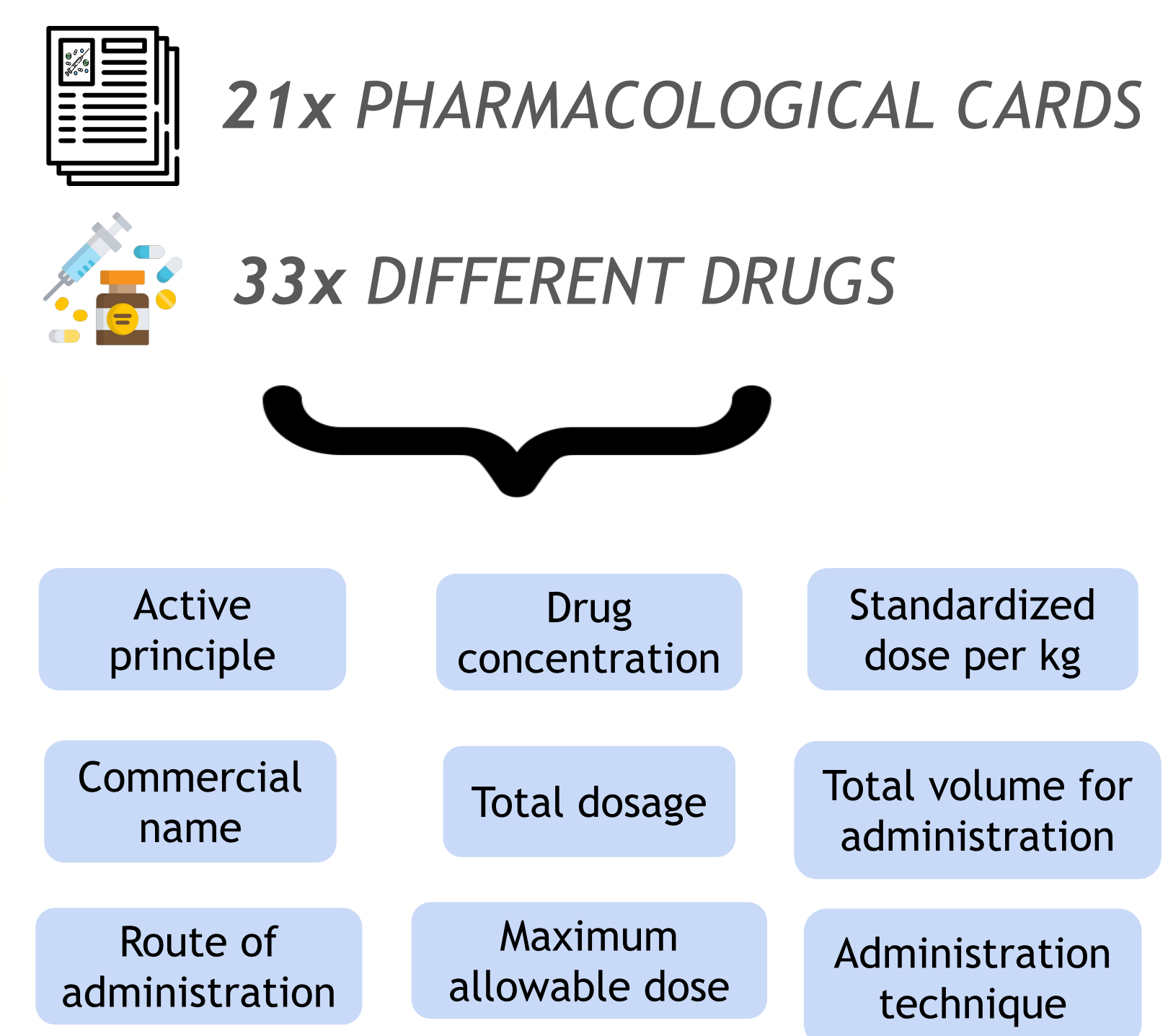
Medical and nursing staff underwent training in the utilization of these tools. An evaluation of the protocols was conducted 12 months after their implementation

Active principle Commercial name Concentration	Dose/kilogram	Total dose	Total dose in milliliters	Preparation and other recommendations
Adenosin IV Adenocor® 6 mg/2 mL	0,1 mg/kg	0,35 mg	0,1 mL	NO dilution required IV bolus: administrate in 1-2 seconds followed by 5-10 mL NS If needed: next doses 0,2 mg/kg
Adrenaline IM Adrenaline 1:1000 (1 mg/mL)	0,01 mg/kg	0,04 mg	0,04 mL	NO dilution required IM administration in anterolateral region thigh
Adrenaline IV or IO (CPR) Adrenaline 1:1000	0,01 mg/kg	0,04 mg	0,35 mL from the diluted solution	Dilution (1:10.000) = 1 mL Adrenaline + 9 mL NS (0,1 mg/mL dilution) IV bolus: administration in 1-2 seconds in case of CPR If CPR persists, repeat dose each 4 minutes (2 CPR cycles)
Amiodarone IV (CPR) Trangorex® 150 mg/3 mL	5 mg/kg	17,5 mg	0,35 mL	NO dilution required IV bolus: administration in 1-2 seconds in case of CPR Maximum dose = 300 mg/dose
Amiodarone IV Trangorex® 150 mg/3 mL	5 mg/kg	17,5 mg	3,5 mL from the diluted solution	Dilute 3 mL amiodarone (150 mg/3 mL) + 27 mL D5W (dilution 5 mg/mL) Administer in 30 minutes
Atropine IV Atropin 1 mg/mL	0,02 mg/kg	0,1 mg	1 mL from the diluted solution	Dilute 1 mL atropin + 9 mL NS (dilution 0,1 mg/mL) IV bolus: administrate in 1 minute Maximum dose = 1 mg
Calcium chloride Calcium chloride 10% 9,13 mEq/10 mL	0,2 mEq/kg	0,7 mEq	1,6 mL from the diluted solution	Dilute 10 mL calcium chloride (9,13 mEq) + 10 mL NS (dilution 4,5 mEq/10 mL) IV administration in 5-10 min. Only use in CPR Maximum dose = 20 mL from the diluted solution
Calcium gluconate IV Suplecal® 10% 4,6 mEq/10 mL	0,5 mEq/kg	1,75 mEq	7,6 mL from the diluted solution	Dilute 10 mL calcium gluconate (4,6 mEq=2,3 mmol) + 10 mL NS (dilution 2,3 mEq/10 mL) Administer in 5-10 minutes Maximum 40 mL of the dilution (9,2 mEq)
Diazepam IV Valium® 10 mg/2 mL	0,2 mg/kg	0,7 mg	0,15 mL	NO dilution required IV administration in 3-5 minutes Maximum dose = 10 mg/dose
Etomidate IV Hypnomidate® 2 mg/mL	0,2 mg/kg	0,7 mg	0,35 mL	NO dilution required IV administration in 1 minute
Fentanyl IV Fentanest® 0,15 mg/3 mL	1 mcg/kg	3,5 mcg	0,35 mL	Dilute 2 mL fentanyl (0,15 mg/3 mL) + 8 mL NS (dilution 10 mcg/mL) IV administration in 3-5 minutes
Flumazenil IV Flumazenil 0,1 mg/mL	0,01 mg/kg	0,035 mg	0,35 mL	NO dilution required IV bolus: administrate in 15-30 seconds Maximum dose = 0,2 mg/dose and 1 mg accumulated
Midazolam IN Midazolam 5 mg/mL	0,3 mg/kg	1,05 mg	0,2 mL	NO dilution required IN administration, afterwards, clean with 1 mL NS

CPR = cardiopulmonary resuscitation; D5W= 5% dextrose water; IV= intravenous; IM= intramuscular; IN= intranasal; IO= intraosseous; NS = 0,9% normal saline

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What has been achieved?



We did not encounter any medication-related errors during the 12-month evaluation period after the implementation

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What next?

The development of pharmacological cards has helped **standardize practices and simplify** the prescription, preparation, and administration of commonly used drugs in pediatric emergency (PE) situations.

The protocolization and implementation of this tool have **enhanced drug safety in pediatric emergency scenarios** by reducing human errors and minimizing medication-related harm.



PSQ13256

@igsacanella

ignasi.sacanella@gmail.com