

Reliability of prognostic scores in Portuguese pediatric intensive care units

“Are they doing a good job?”

Reliability of prognostic scores in Portuguese pediatric intensive care units

Class 4¹

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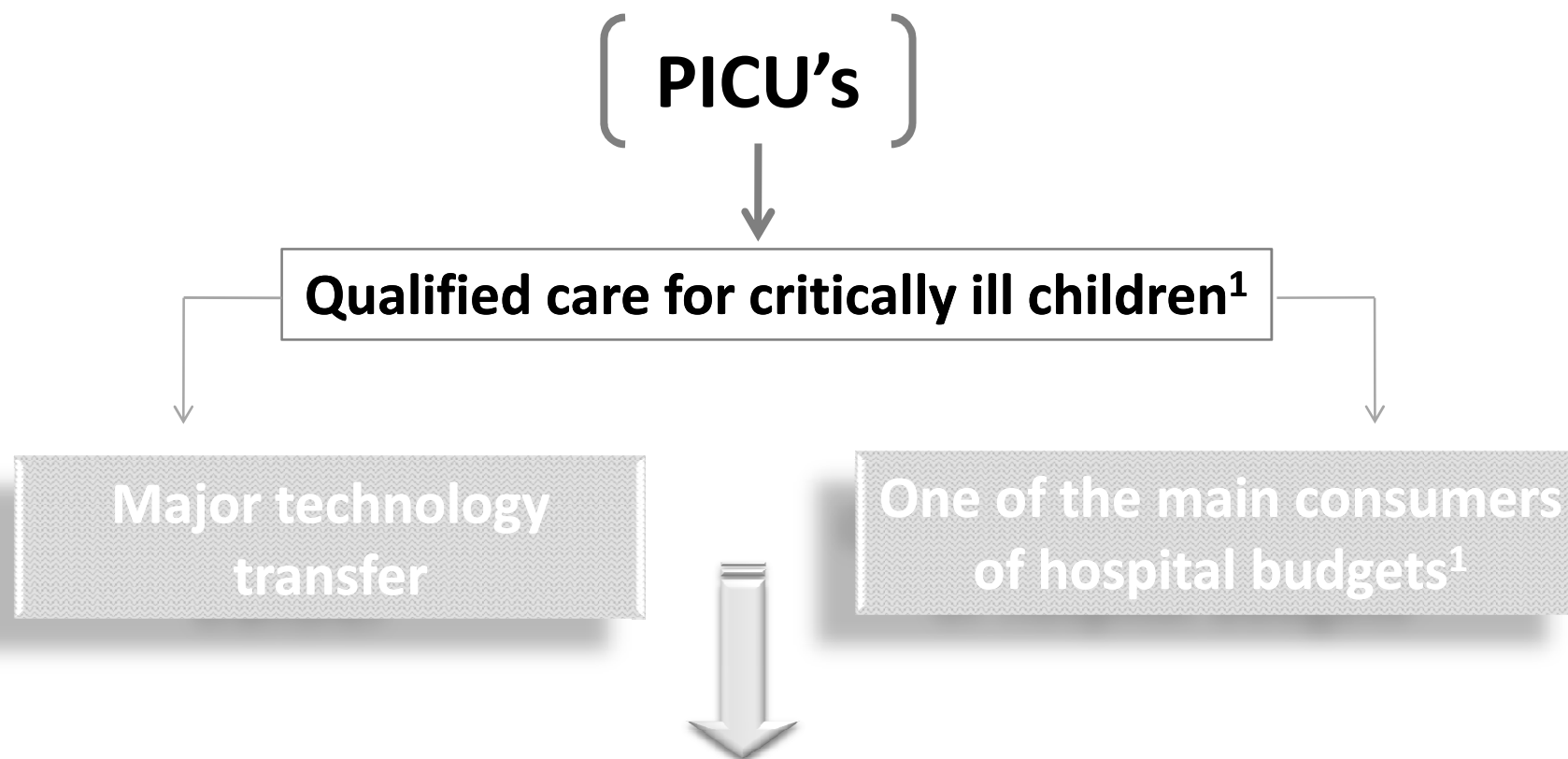
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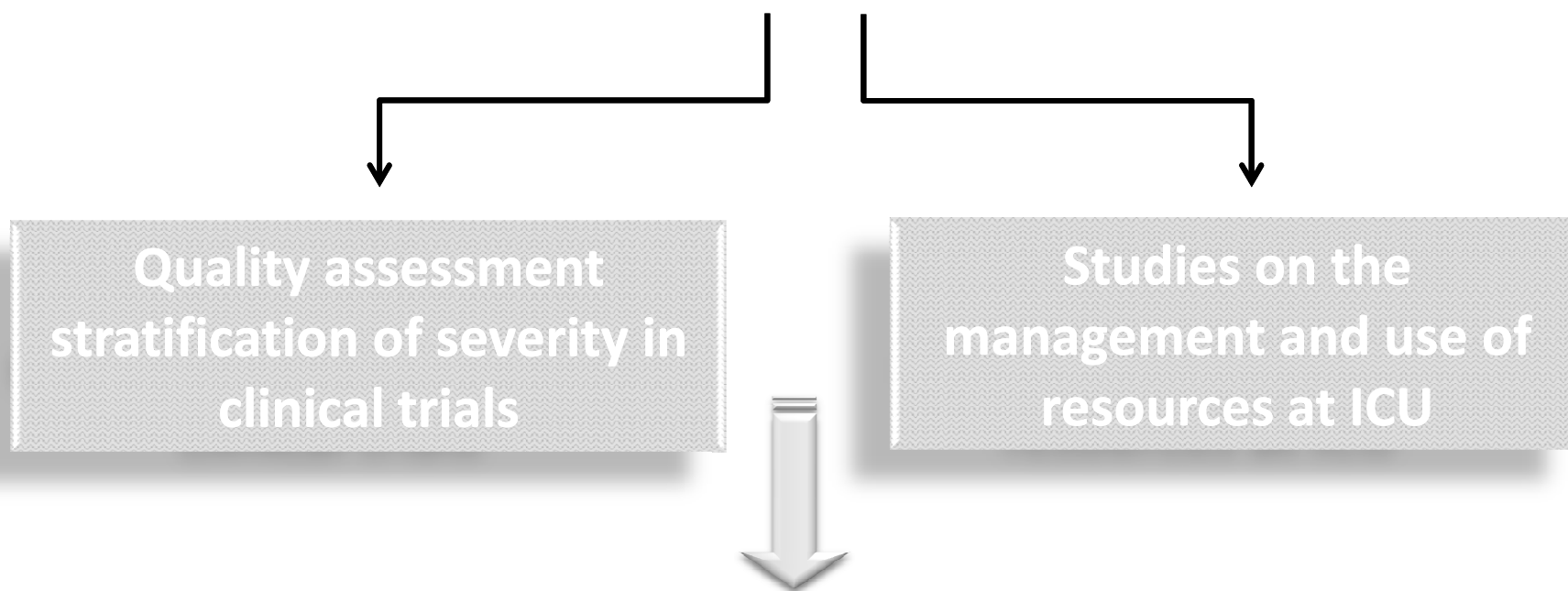
- ▶ **Introduction;**
- ▶ **Pediatric Intensive Care Units (PICU's);**
- ▶ **Prognostic Scores Systems:**
 - ▶ **Pediatric Prognostic Scores:**
 - PRISM;
 - PRISM-III;
 - PIM;
 - PIM-2;
 - ▶ **Pediatric Prognostic Scores in Portuguese Context;**
- ▶ **General aims;**
- ▶ **Key words;**
- ▶ **References;**
- ▶ **Acknowledgements;**

PEDIATRIC INTENSIVE CARE UNITS (PICU's)



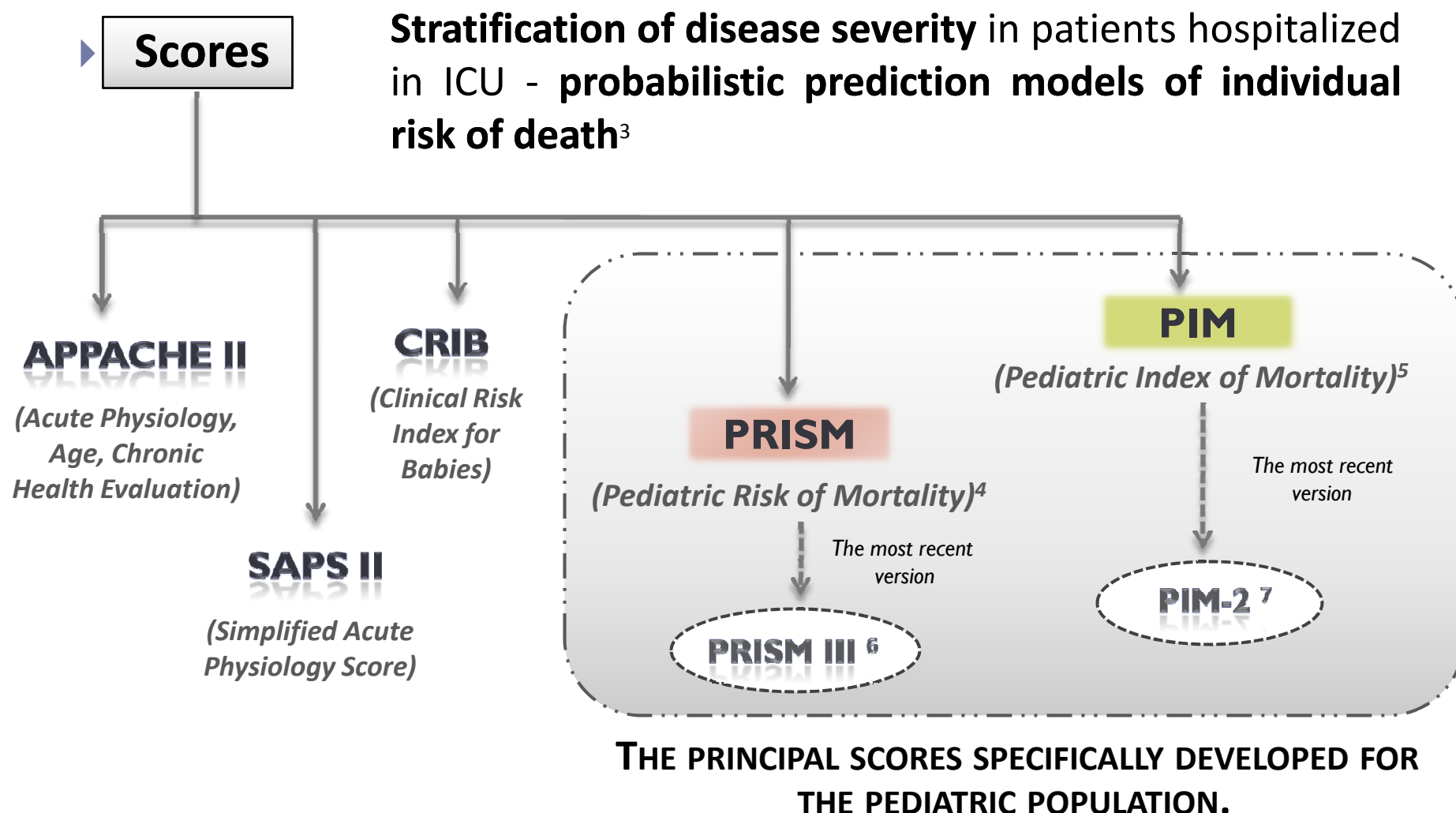
PROGNOSTIC SCORES SYSTEMS

The assessment of disease severity is essential for a wide range of analysis in Intensive Care Units (ICU)



- **Quality and efficacy** of care provided at a given unit
- **Comparison with others in similar situations.**²

PROGNOSTIC SCORES SYSTEMS



PEDIATRIC PROGNOSTIC SCORES SYSTEMS

PRISM

Pollack et al., 1988

- Excellent **discriminatory and predictive** performance;⁶
- The most **widely known and used** at PICU;
 - **Standard prognostic score** for evaluation of **disease severity** in pediatric patients in clinical trials;
- **Period of observation** - 24 hours;
- Based on **14 variables**.



PRISM III

Pollack et al., 1996

- According to its authors, offers **better predictive capability**;
- **Measure severity at two time points** (at 12H and 24H) after admission.

PEDIATRIC PROGNOSTIC SCORES SYSTEMS

PIM

Shann et al., 1997

- Capable of **good predictions** and **classifications**;
- Based on just **8 variables**;
- All collected data **at the point of admission**:
 - **Facilitation of data collection**;
 - **Avoiding any impact** on results from 24 hours **of intensive management strategies**;

PIM-2

Slater et al., 2003

- According to its authors, offers **better predictive capability**,^{8,9}
- Measure severity at **two time points (at 12H and 24H) after admission**.¹⁰

PEDIATRIC PROGNOSTIC SCORES SYSTEMS

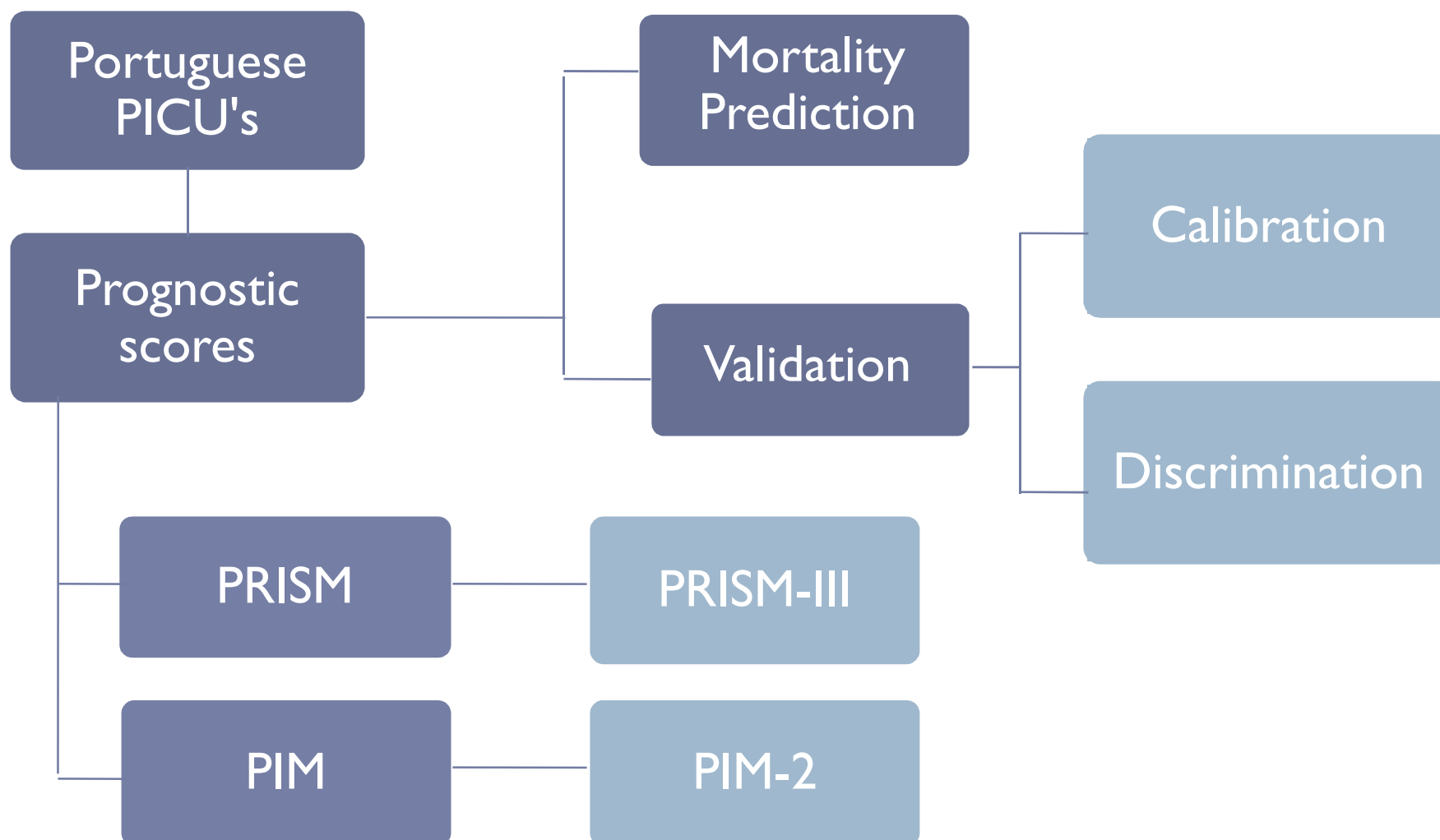
- ▶ **Vitality of validation** of a scoring model when assessing its ability to predict one of the **many important outcome measures**, namely **death**
- ▶ Both **discrimination and calibration** being considered in order to achieve a **global evaluation** of the score
- ▶ **Specificthe existence of several contradictory data on its application in other populations geographic context development** and
- ▶ **No validation evidences** in order to its application in Portuguese PICU's
- ▶ **Vital necessity** of its **accuracy evaluation** in large **cohort of Portuguese context**

Are PRISM, PRISM III, PIM and PIM-2 scoring systems reliable in death prediction at Portuguese PICU's?

GENERAL AIMS

- ▶ **Validation** of the PRISM, PRISM III, PIM and PIM-2 prognostic scores with **comparison** of their **performance** at a general Portuguese pediatric intensive care units;
- ▶ **Evaluation** of PRISM, PRISM III, PIM and PIM-2 scoring systems' **discrimination**, **calibration** and **predictive degree** at Portuguese PICU's.

KEY WORDS



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