

Portuguese Paediatric Intensive Care: Main Characteristics

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INTRODUCTION:

Periodic and critical evaluation of the characteristics of the population served by PICUs is part of good practice procedures. The results presented are part of an ongoing prospective project in three Portuguese PICUs (from North, Centre and South of Portugal), designed to become the basis for evaluation of quality of delivered care and quality of life of patients submitted to paediatric intensive care. This project is funded by "Fundação para a Ciência e a Tecnologia" and FEDER (POCTI/ESP/41472/2001) and will last until February, 2005.

OBJECTIVES:

The purpose of this study was to assess the main characteristics of the three PICU patients from which we report these preliminary results.

MATERIAL AND METHODS:

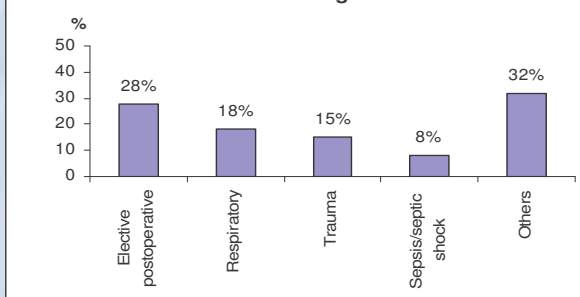
Data was collected from all admissions to the three PICUs between 01/May/02 and 30/Apr/04, including age, gender, admission diagnosis (elective postoperative, respiratory, trauma, sepsis/septic shock, others), need of mechanical ventilation, outcome, forgoing life-sustaining treatments, length of PICU stay (LOS), readmission to PICU and data required to calculate probability of death algorithms (PRISM, PRISM-III(12h), PIM and PIM2).

Statistical analysis was done using SPSS® v.12.0 (Statistical Package for the Social Sciences).

General characteristics

n=1153	
Gender (%)	
Male	46
Female	54
Age (months): Median (P5-P95)	41 (1-171)
Length of stay (days): Median (P5-P95)	2.7 (0-21.9)
Mechanical ventilation (%)	
No	42
Yes	58
Non-Survivors: n / %	117 / 10%

Admission Diagnosis



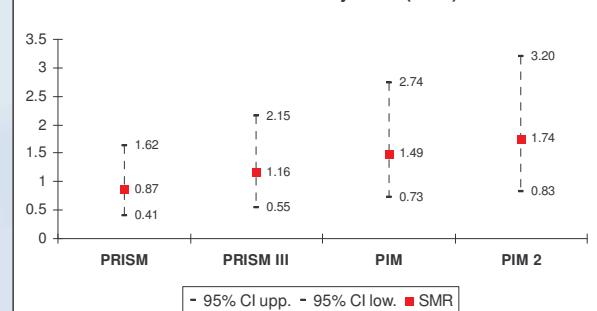
RESULTS:

From the total of 1153 admissions, 46% were male patients and the median age was 41 months (range: 1-214). The percentage of admissions were: elective postoperative (28%), respiratory (18%), trauma (15%), sepsis/septic shock (8%), others (32%). Mechanical ventilation was needed in 58% of cases. Median LOS was 2.7 days. Crude mortality rate was 10% with standardised mortality rates (SMR) of 0.87, 1.16, 1.49, 1.74 for PRISM, PRISM-III(12h), PIM and PIM2, respectively. Forgoing life-sustaining treatment (FLST) occurred in 41% of all deaths. Readmission to PICU, during the same hospitalisation, occurred in 5,7% of cases.

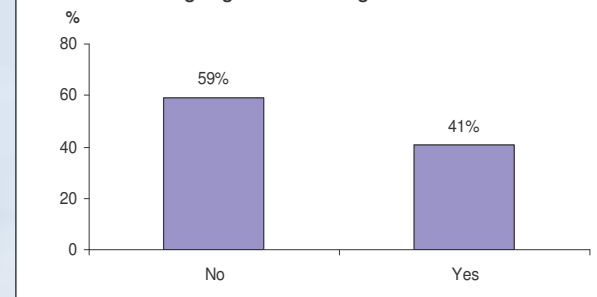
Distribution of probability of death (%)

	PRISM n=1147	PRISM III n=1147	PIM n=1135	PIM 2 n=494
Minimum	0.24	0.10	0.16	0.02
Percentile 5	0.47	0.21	0.22	0.12
Median	2.29	1.17	1.58	1.11
Percentile 95	68.18	55.44	32.20	28.35
Maximum	99.93	96.53	99.73	98.05

Standardised Mortality Ratio (SMR)



Forgoing Life-Sustaining Treatment



CONCLUSIONS:

These are results of an ongoing project, but they allow us a better knowledge of our population. The mortality rate is high, although SMR shows conflicting results. FLST is a very common event preceding death. Evaluation of quality of delivered care and quality of life of patients admitted to our PICU is being prospectively done and periodically reported in the web homepage of our project.

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