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Current situation of pediatric emergency departments in Argentine public hospitals

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ABSTRACT

Introduction. The quality improvement cycle in health care requires surveys and measurements. This study, based on data from a Latin American collaborative research project, aimed to describe the situation of pediatric emergency departments (PEDs) in Argentina and identify opportunities for improvement.

Methods. Retrospective descriptive study. Data from 2019 were collected in PEDs of public hospitals with pediatric intensive care units (PICU). Continuous variables are presented as median and range, categorical variables as percentages, and productivity/resource ratios as ratios. Bivariate analysis was performed.

Results. Out of 66 services, 62 (94%) participated. There was a deficit of isolation and specific pediatric care sectors; 21 (33.9%) PEDs had >70% of the equipment evaluated for the treatment of critical patients. Triage was performed in 34 (54.8%) PEDs. The median number of annual visits/observation beds was 7333 (IQR: 4,998-13,377); the median number of daily visits/consulting rooms was 37.6 (IQR 20.6-60.3). The number of beds increased by 75% at the seasonal peak. The median daily visits were 43/physician and 40.2/nurse. In 32 (51.6%) PEDs, there was 1 physician and 1 referring nurse per shift. Data were electronically recorded in 51 (82.2%) PEDs. Five critical care protocols were used in 44 (71%) PEDs, and 18 (29%) had a quality improvement plan. Five (8%) PEDs followed defined schedules for academic activities.

Conclusion. This survey allowed us to know the situation of SEPs in Argentina's public hospitals and to identify opportunities for improvement..

Keywords: *surveys and questionnaires; quality of health care; pediatric emergency medicine; public hospitals; health resources.*

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INTRODUCTION

The increasing demand for pediatric emergency departments (PEDs) in recent years[1-4] has generated the need to adapt to provide quality care, which implies better outcomes delivered in an "effective, safe, people-centered, timely, equitable, integrated and efficient" manner.[5]

In 2001, the American Academy of Pediatrics and the American College of Emergency Physicians published a joint statement on emergency department (ED) preparedness.[6] The World Health Organization, the International Federation for Emergency Medicine, scientific societies, and government agencies in several countries have also issued standards or recommendations for pediatric emergency care (PEC).[6-13] In addition, indicators of quality of PEC have been published,[14,15] which allow for the measurement of adequacy of structural and human resources, compliance with processes, and care outcomes.

When applying the quality improvement cycle "plan-do-check-act," it is essential to carry out measurements and surveys that allow us to know the reality, needs, and gaps in quality of care, considering that better preparedness of PEDs is associated with lower short- and long-term mortality in ill and injured pediatric patients.[16]

In Latin America, the first survey of general resources and operation of public PEDs was published in 2022.[17] The present study was prepared based on the data extracted from that research and aims to describe the PEDs of public hospitals in Argentina and identify opportunities for improvement.

METHODS

The study design was descriptive, retrospective, and multicenter. We used a survey prepared according to recommendations and quality standards published by national and international organizations,[7-15] with eight sections: institutional information, productivity, and functionality; facilities and equipment; records and online resources; human resources; capacity for consultation with specialists; teaching and research activity; PEC protocols and quality and safety management (*Supplementary Material 1*).

In the original work, 28 site collaborators from 17 Latin American countries created, by consulting official web pages, a database of PED heads/managers who were asked to answer the survey, which was sent weekly using the REDcap program (ResearchElectronic Data Capture: https://www.project-redcap.org).

The study protocol was approved by the Review and Research Ethics Committee of the Hospital de Pediatría S.A.M.I.C. Prof. Dr. Juan P. Garrahan (HPG), the Organization and Quality Working Group of the Latin American Society of Pediatric Emergency Medicine and the Latin American Pediatric Emergency Medicine Research and Development Network. The HPG acted as the study's coordinating center, and each participating institution signed an inter-institutional confidentiality agreement (ICA).

Publicly funded hospitals with pediatric intensive care units (PICU) were included in the study.

Centers that did not sign the ICA were excluded. Data were requested for 2019 and received between December 1st, 2019 and December 8th, 2020.

Statistical analysis

The normality of the distribution of quantitative data was evaluated using the Shapiro-Wilk test; normally distributed variables are reported as mean and standard deviation and non-normally distributed variables as median and interquartile ranges. Categorical variables are reported as numbers and percentages and the relationship between care productivity data and resources as a ratio. The chi-square test of independence was used to compare groups; the significance level used was 0.05. Statistical evaluation was performed using REDcap and InfoStat version 2020. (Universidad Nacional de Córdoba, Argentina: http://www.infostat.com.ar).

RESULTS

Sixty-six PEDs were invited to participate, and 62 (94%) PEDs submitted the ICA and were included.

Supplementary Material 2 presents the list of participating hospitals. *Table 1* describes the characteristics of the surveyed hospitals, *Table 2* describes the facilities, and *Figure 1* shows the resources reported in the resuscitation area. *Supplementary Material 3* shows the list of the airway equipment considered complete.

Laboratory tests and simple radiology were permanently available in all hospitals, computed tomography in 55 (88.7%), nuclear magnetic resonance imaging in 14 (22.6%), and pharmacy service in 28 (45.1%) hospitals.

PED functionality and productivity data are presented in *Table 3*.

Table 1. General characteristics of the surveyed hospitals (n = 62)

Category	n	%
Hospitals by number of annual visits in the PED		
≤20,000	8	12.9
20,001 to 50,000	26	41.9
50,001 to 100,000	20	32.3
>100,000	8	12.9
Hospitals by population assisted		
Pediatric	20	32.3
Maternal-child	8	12.9
General	34	54.8
Hospitals by funding		
Exclusively public	47	75.8
Public and private	15	24.2
Hospitals by university affiliation		
Affiliated	38	61.3
Not affiliated	24	38.7
Hospitals according to medical residency program (MRP)		
They have MRP	49	79
No MRP	13	21
Age limit for patients (years)		
12 or 13	3	4.9
14 or 15	49	79
16, 17 or 18	10	16.1

n: number.

Table 2. Description of facilities (n = 62)

Facilities (n of PEDs reporting data)	n (%)
Entrance and reception areas	
Independent ambulance entrance	53 (85.5)
Security post at external access	55 (88.7)
WR differentiated according to the priority of care	11 (17.7)
Separate WR for children and adults (n = 42) *	24 (57.1)
Care areas	
Inhalation therapy room	29 (46.8)
Oral rehydration room	17 (27.4)
Room for procedures with sedation and analgesia	16 (25.8)
Room for minor procedures and healing	43 (69.4)
Pediatric OA (with stable supply of beds)	59 (95.2)
Pediatric OA separated from adult OA (n = 42) *	35 (83.3)
Pediatric RA separated from adult RA (n = 42) *	26 (61.9)
Isolation rooms with their own bathrooms	22 (35.5)
Private area for interviews	17 (27.4)
Other areas	
Clean area to prepare medication	55 (88.7)
Area for contaminated waste and disposables	54 (87)
Classroom available in PED or hospital	59 (95.1)

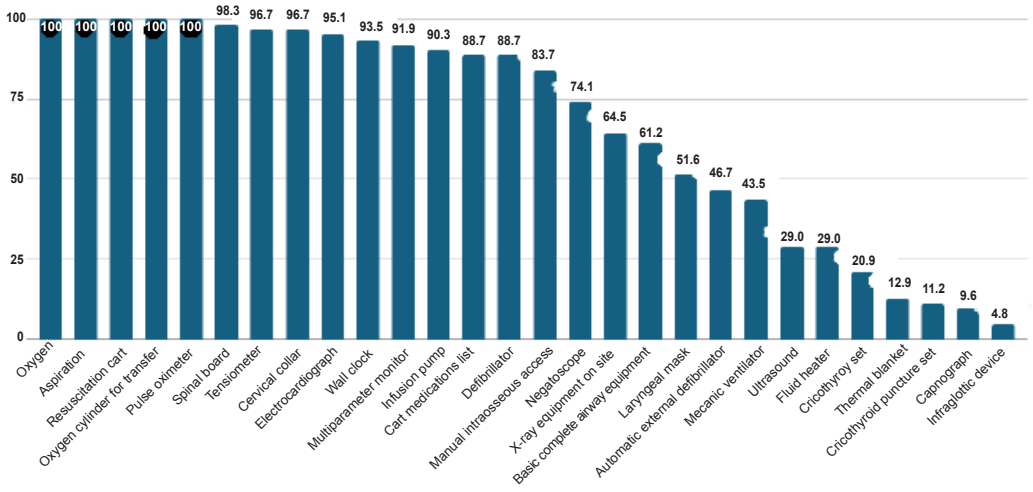
OA: observation area; RA: resuscitation area; WR: waiting room.
**When evaluating visual and acoustic separation of children and adults in WR, OA and RA, only the 42 general and maternal-child hospitals were considered.*
#Three general hospitals lacked pediatric beds in OA.

Triage was performed by nurses in 30 (88.2%) hospitals and by physicians in 7 (20.5%); 17 (50%) had a triage manager. Training in triage was provided in 26 (76.5%) services.

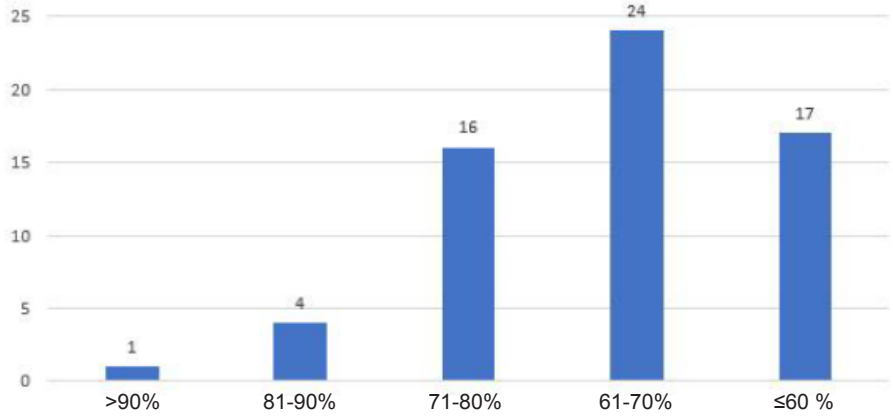
Forty-one (66.4%) PEDs reported participating in the hospital evacuation plan, 39 (66.1%)

Figure 1. Resources available in the resuscitation area

1a. Percentage of PEDs that have each item available



1b. Number of PEDs according to the percentage of items available



PEDs: pediatric emergency departments.
Note: The oxygen supply and suction system are centralized in 60 (96.8%) PEDs. The airway equipment considered complete is listed in Supplementary Material 3.

departments in the in-hospital rapid response team, and 26 (41.9%) in the regional inter-hospital transport system.

Regarding records, the clinical history was permanently available at 39 (62.9%) hospitals. Personal data were electronically recorded in 51 (82.2%) hospitals, and medical records in 29 (46.8%). A patient discharge form was used in 51 (82.2%) PEDs, and in 29 (46.8%) referral requests were recorded. At 43 (69.3%) units, diagnostic coding was performed, by medical personnel in 22 (35.5%) and by administrative personnel in 21 (33.8%) PEDs.

The following resources were online: images in 36 (58%) PEDs, hospital protocols and guidelines in 19 (30.6%), model templates for frequent diseases in 11 (17.7%), drug prescription alert systems in 7 (11.3%), and electronic tracking of patients in 16 (25.8%) PEDs.

Regarding human resources, 34 (54.8%) hospitals had designated a medical coordinator and 39 (62.9%) had a nurse coordinator.

Pediatricians accounted for 78% of the overall medical staff of PEDs; 44.6% were certified in Pediatric Emergency Medicine (PEM) or had experience ≥5 years and training in the specialty. Family physicians, general practitioners, and clinicians constituted 7.8% of the staff, and general emergency physicians constituted 11.7%.

Twenty-five (40.3%) centers had permanent surgeons, traumatologists, pediatric intensivists, and anesthesiologists. There were full-

Table 3. Functionality of the infrastructure and productivity

Item (n of PEDs reporting data) (IQR)	n (%)	Median
Triage		
Triage (n = 62)	34 (54,8)	
Triage 24 hours/365 days (n = 34)	23 (67,6)	
Electronically registered triage (n = 34)	24 (70,6)	
Triage systems (n = 34)		
Andorran Triage System (MAT)	12 (35,3)	
Canadian Pediatric Triage and Acuity Scale	9 (26,5)	
Manchester Triage System	6 (17,6)	
Reception and classification*	2 (5,9)	
In-house systems	3 (8,8)	
Not specified	2 (5,9)	
Care productivity		
Daily visits per office (n = 62)		37.6 (20.6-60.3)
Annual visits per OA bed (n = 59)		7,333 (4,998-13,377)
Percentage increase in beds in seasonal peak (n = 59)	-	75% (31%-200%)
Percentage of patients assisted in RA (n = 44)	-	1.8% (0.5%-5.8%)
Percentage of patients who leave without being seen (n = 15)**	-	2.75% (0.26%-4.8%)
Duration of care		
Outpatient care time (n = 14)	-	2 hours (1.25-3.75)
OA length of stay in the OA (n = 42)	-	8 hours (6-16.5)
RA length of stay in the RA (n = 36)	-	2 hours (1-2.4)
Hospital admission		
Percentage of admitted patients (n = 55)	-	4.3% (2.3%-6.8%)

OA: Observation Area; RA: Resuscitation Area; n: number; IQR: interquartile range.

** Reception and classification (RAC system).[18]*

***Fifteen PEDs (24%) reported reliable records of patients who have not been seen.*

time biochemists in 59 (95.1%) institutions, hemotherapy technicians in 51 (82.2%), respiratory therapists in 14 (22.6%), pharmacists in 7 (11.3%), and social workers in 5 (8%). The availability of specialists and support services is shown in *Supplementary Material 4*.

The number of physicians was adapted to the demand flows in 40 (64.5%) departments and the number of nurses in 43 (69.3%) PEDs.

The median duration of work shifts was 24 hours for physicians and 8 hours for nurses. The median number of daily visits was 43 (IQR: 31.6-58.4) per staff physician and 40.2 (IQR: 28.1-58.9) per nurse. There were more than 65 daily consultations per physician in 11 (17.7%) PEDs and per nurse in 13 (21%) departments.

In terms of academic activities, 14 (22.6%) PEDs were developing a continuing education program (CEP) for physicians and 22 (35.5%) for nursing. Forty-eight (77.4%) PEDs received rotations of resident physicians, and 10 (16.1%) had PEM training programs. Twenty-six (41.9%) departments carried out grand rounds, and 5 (8%) complied with the established schedule for teaching and research.

In 46 (74.2%) hospitals, there was access to medical libraries/information via the Internet.

Within the five years before the survey, 26 (41.9%) PED teams had submitted research papers, and 12 (19.3%) had published their results.

Forty-four (71%) PEDs had established five care protocols considered "primary" (cardiopulmonary resuscitation, shock and sepsis, respiratory failure, trauma, and status epilepticus). Twenty (32.2%) hospitals had a disaster protocol that included pediatric needs. The availability of clinical protocols or guidelines is shown in *Supplementary Material 5*.

The data on quality and safety issues are shown in *Table 4*.

Bivariate analysis shows the behavior of 20 variables according to hospital characteristics (*Table 5*).

DISCUSSION

The purpose of EDs is to receive, triage, stabilize, and provide medical care to patients with acute conditions. PEDs have characteristics that make them a unique environment; these include the varied case-mix –combining patients with acute and life-threatening diseases or complications with less severe patients suffering from undifferentiated conditions and/or acute psychosocial problems–, the number and importance of the services provided, the high turnover of patients, the different admission routes, the presence of stressed and anxious family members or caregivers; adding a non-transferable and leading role in disaster situations.

PEDs need to be adequately prepared to respond to this demand; this implies having structural and human resources defined by standards, processes guided by clinical protocols/guidelines, and measured by specific indicators. Baseline and successive measurements guide planning and allow to evaluate the results of interventions.

The surveys about PED preparedness have shown considerable variations in different countries and regions.[16,17,19-29] Regarding the results presented on PEDs in Argentina, there are deficiencies according to national regulations and published recommendations.

In a high percentage of general and maternity hospitals, children and adolescents wait or are treated in common areas with adults, and there are few areas for specific procedures.

Even though the surveyed PEDs belong to hospitals with PICUs, only 21 (33.9%) reported having >70% of the items assessed in the resuscitation area; airway equipment [8,9,11-13,30] was deficient overall and in almost all hospital categories.

Many centers did not have patient triage at the time of this survey. This system is essential for prioritizing critically ill patients' care and managing patient flow and available resources.[10,11,13,32]

Table 4. Quality and safety management (n = 62)

Quality and safety indicators or tools	n (%)
Hospital quality and safety committee	22 (35.5)
Participation of PED staff in the hospital's QSC (n = 22)*	12 (54.5)
Patient safety program run by the PED or by the hospital	16 (25.8)
PED continuous quality improvement plan	18 (29)
Quality manager in the PED team	6 (11.5)
Quality sessions conducted in the PED	16 (25.8)
Assignment of a nurse-physician dyad per shift to oversee multiple aspects of PEC	32 (51.6)
Quality monitoring through quality indicators	9 (14.5)
Quality indicator dashboard	2 (3.2)
Evaluation of medical skills and competencies in PEC	9 (14.5)
Evaluation of nursing skills and competencies in PEC	9 (14.5)
Training in communication skills and teamwork	19 (30.6)
Daily rounds	55 (88.7)
Use of a standardized hand-off tool	39 (62.9)
Defined list of emergency supplies and drugs with regular checks	52 (83.9)
Use of tape for length-based weight calculation	26 (42)
Use of cards/handbooks to calculate and administer drugs	33 (53.2)
Alert system for abnormal laboratory results	19 (30.6)
Protocols and clinical guidelines consistent with regional standards	25 (40.3)
Defined criteria for accepting and/or rejecting referrals	37 (59.7)
Informed consent documented in the medical record	45 (72.6)
Record of adverse events	21 (33.9)
Record of readmissions within 72 hours	35 (56.5)
Means for families to communicate complaints or claims	44 (71)
Alert codes for emergencies (loss of children, violent people, fire, explosives, etc.)	9 (14.5)
Medical equipment maintenance protocol	27 (43.5)

** Respondents were 22 PEDs whose hospitals had a quality and safety committee.*

QSC: quality and safety committee; PEDs: pediatric emergency departments; PEC: Pediatric Emergency Care.

TABLE 5. Bivariate analysis (n: 62 - except when specified)

	Per population assisted			Per funding			Per number of annual visits (NAV)				Per affiliation with a university		
	General	Pediatric/ Maternal-Child	*p*-value	Public	Public and private	*p*-value	NAV1: ≤50,000	NAV2: 50,001-100,000	NAV3: >100,000	*p*-value	Affiliated	Not affiliated	*p*-value
Distribution of hospitals by listed category	34	28	0.446	47	15	<0.0001	34	20	8	0.0003	38	24	0.0754
Equipment													
Equipment of the RA (28 items evaluated)	19 (18.2)	20 (19.4)	0.2548	19 (18.9)	21 (19.9)	0.1724	19 (18.5)	19.5 (18.6)	21 (20.4)	0.3123	19 (18.7)	19 (18.8)	0.9826
Complete airway equipment	19 (55.9)	19 (67.9)	0.3354	26 (55.3)	12 (80.0)	0.0875	20 (58.8)	12 (60.0)	6 (75.0)	0.6925	23 (60.5)	15 (62.5)	0.8765
Functionality													
Triage	16 (47.1)	18 (64.3)	0.175	24 (51.1)	10 (66.7)	0.2904	15 (44.1)	11 (55.0)	8 (100.0)	**0.0169**	22 (57.9)	12 (50)	0.5429
Daily visits per office	26.2 (33.6)	52.5 (59.1)	**0.0026**	43 (47.3)	21 (37.6)	0.0703	21.3 (27.5)	62.5 (64.3)	55.7 (71.9)	**<0.0001**	33.0 (45.0)	41.3 (45.3)	0.7726
Annual visits per observation bed (n: 59)	7,333.33 (8,368.93)	7,529.02 (11,144.79)	0.2486	7,200.9 (10,097.9)	7,682.82 (8,363.26)	0.7083	7,500 (9,488.33)	6,861.95 (8,980.6)	7,212.66 (12,217.6)	0.6882	6,568.18 (9,340.97)	7,558.19 (10,189.88)	0.6883
% increase in beds in seasonal peak (n:59)	75 (164.3)	70.84 (143.4)	0.9878	75 (174)	61.3 (91.6)	0.2342	75 (157.8)	100 (153.7)	72.6 (141.2	0.8567	75 (184)	58.3 (111.3)	0.3368
% of admitted patients	4.1 (5.3)	4.8 (6.3)	0.1947	4.3 (6.4)	4.3 (3.6)	0.2118	4.3 (5.7)	3.8 (5.1)	5.2 (7.5)	0.4067	3.9 (5.5)	4.4 (6.2)	0.2826
% of patients assisted in the RA	1.3 (3.3)	2.5 (4.4)	0.4201	2.3 (4.2)	1.3 (3.0)	0.313	2.0 (4.8)	2.3 (2.9)	0.9 (3.4)	0.7129	2.5 (4.2)	1.4 (3.6)	0.8588
Human resources													
Physician and/or nurse coordinator assigned per shift	17 (50)	15 (53.6)	0.175	23 (48.9)	9 (60)	0.2904	14 (41.2)	13 (65)	5 (62.5)	0.1923	23 (60.5)	9 (37.5)	0.0772
Daily visits per physician	32.2 (37.2)	58.6 (60.6)	**<0.0001**	45 (50.6)	38 (40.6)	0.1498	32.9 (34.6)	53.2 (61.9)	68.8 (71.2)	**<0.0001**	44.1 (48.9)	41.3 (46.5)	0.5255
Daily visits per nurse	33.0 (38.6)	51.2 (56.3)	**0.0047**	59 (57.7)	37 (37.1)	**0.0215**	33.0 (38.2)	48.6 (54.7)	55.7 (62.2)	**0.0156**	45.7 (51.6)	39.7 (38.7)	0.1653
Records													
Electronic general records	25 (73.5)	26 (92.9)	**0.0468**	39 (83)	12 (80)	0.7926	26 (76.5)	18 (90.0)	7 (87.5)	0.4164	30 (78.9)	21 (87.5)	0.3079
Electronic medical records	15 (44.1)	14 (50)	0.6441	20 (42.6)	9 (60)	0.2384	15 (44.1)	7 (35.0)	7 (87.5)	**0.038**	18 (47.4)	11 (45.8)	0.9061
Teaching and scientific activity													
Grand rounds	9 (26.5)	17 (60.7)	**0.0065**	16 (34.1)	10 (66.7)	**0.0258**	13 (38.2)	7 (35.0)	6 (75.0)	0.1238	17 (44.7)	9 (37.5)	0.5738
CEP for physicians	2 (5.9)	12 (42.9)	**<0.0001**	11 (23.4)	3 (20)	0.7837	5 (14.7)	4 (20.0)	5 (62.5)	**0.0137**	10 (26.3)	4 (16.7)	0.5354
CEP for nurses	8 (23.5)	14 (50)	**0.0302**	14 (29.8)	8 (53.3)	0.097	9 (26.5)	8 (40.0)	5 (62.5)	0.1398	13 (34.2)	9 (37.5)	0.792
Training in triage (n:34)	14 (87.5)	12 (66.7)	0.1529	21 (84.0)	5 (55.6)	0.0845	12 (80.0)	9 (81.8)	5 (62.5)	0.5637	17 (77.3)	9 (75)	0.8813
Published papers in the last 5 years	5 (14.7)	7 (25.0)	0.3073	5 (10.6)	7 (46.7)	**0.0021**	6 (17.6)	2 (10.0)	4 (50)	**0.0498**	9 (23.7)	3 (12.5)	0.3391
Quality of care													
QI Committee	10 (29.4)	12 (42.9)	0.2708	14 (29.2)	8 (57.1)	0.0542	11 (32.4)	7 (35.0)	4 (50.0)	0.6428	14 (36.8)	8 (33.3)	0.7785
QI plan	6 (17.6)	12 (42.9)	**0.0295**	13 (27.1)	5 (35.7)	0.5313	10 (29.4)	3 (15.0)	5 (62.5)	**0.0437**	12 (31.6)	6 (25.0)	0.5783

Quantitative variables are shown as median (mean); dichotomous qualitative variables are expressed as number (%) of hospitals that met the item in the corresponding category.
NAV: number of annual visits. The categories NAV1 and NAV2 were compared as a whole to the NAV3 category.
RA: resuscitation area. CEP: continuing education program. QI: Quality Improvement.

Published standards advise having an office every 14-22 daily visits;[10,11] the deficit in this resource is greater and statistically significant in children's hospitals and in those with higher demand (number of anual visits 3 -NAV3- category)

The recommended ratio of 5000 to 10,000 visits per year per observation bed[11] was surpassed in public, non-university, NAV3 category, and children´s hospitals, indicating lack of resources. The admission rate, which expresses the ability to use hospital resources to solve problems, exceeded the standard of 5%[15] in many centers, with no statistically significant difference between the different categories. The increase in beds during the seasonal peak reflected a significant overload.[33]

At the time of the study, many PED teams did not have permanent access to medical records and did not perform diagnostic coding.

In the United States, the National Pediatric Readiness Project, a national initiative to improve the quality of PEC in EDs, showed that the top three drivers of pediatric readiness are the presence of PEC coordinators (physician and nurse), the existence of a quality improvement plan and the participation in a PED accreditation program by an external agency.[19]

In the present study, almost half of the centers lacked these PEC coordinators, with no statistically significant difference when analyzing by institution category.

The number of daily visits per physician/nurse is statistically significantly higher in the hospitals with the highest demand, and in pediatric and maternal-child hospitals. The recommended maximum standard (65 daily visits per physician/nurse or 0.37 professional hours/patient)[11] was exceeded in many departments, suggesting inadequate staffing and work overload, which could be increased in PEDs where staffing is not adapted to seasonal demand flows. At the time of this survey, most hospitals established long shifts for physicians.

It is recommended that each PED analyze its own "digital footprint" to calculate the human resources based on severity and demand flows.[11,34] In addition, adjustments should be made to ensure supervision of trainees.[11,13]

At the time of this survey, a significant percentage of PEDs had less than five "primary" protocols, and simultaneously, as reported in other regions and countries, a low percentage had disaster protocols that include pediatric needs.[16,17,24,26,27]

PEDs should plan their CEPs based on the staff training needs, the presence of professionals not specialized in pediatrics, and the limited access to specialists and support services.[8,10,11,13] Improving access to scientific publications and implementing training programs on PEM for resident physicians would be convenient.

PEDs are vulnerable to errors due to the unpredictable arrival of patients with serious diseases or injuries that require immediate treatments and procedures, during which indications are given verbally. The lack of quality and safety programs or tools[8-11,15,35] —such as standardized handoff tools— may contribute to error, especially under conditions of overload and exhaustion.

The percentage of patients who leave without being seen and the readmissions within 72 hours are indicators with high consensus among experts,[14,15,35] but rarely used in the surveyed PEDs.

In a cohort of 796,937 children in which 705,974 (88.6%) consulted for medical problems and 90,963 (11.4%) for injuries, better PED preparedness (88 to 100 points on the weighted Pediatric Readiness Score) was associated with 76% lower hospital mortality in children with medical problems (adjusted OR: 0.24; 95%CI: 0.17-0.34) and 60% lower mortality among injured children (adjusted OR: 0.40; 95%CI: 0.26- 0.60).[16]

The quality improvement plans are not frequent in the PEDs surveyed; similar results were reported in Latin America, Europe and in the USA.[17,19,27] In this regard, using a dashboard that gathers the most relevant indicators[8,9,14,15,33-35] is essential to monitor and report results in an orderly, systematic, and continuous manner. Developing a quality improvement plan requires the participation of the entire healthcare team and the support of hospital authorities.

This study has several limitations. Because it is a survey, the data are referenced and not ascertained. It was carried out with data on productivity in 2019 and on resources and equipment before the pandemic; therefore, it may reflect structural and operational aspects that are different nowadays.

However, it presents crucial strengths. It is the first published survey of PEDs in Argentina; the database was rigorously prepared and answered by 94% of the PEDs invited to participate; the completeness percentage in most items was 100%.

CONCLUSION

This first report about PEDs in Argentine public hospitals provides insight into structural and operational aspects and identifies, according to published standards, essential opportunities for quality improvement. ■

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The supplementary material accompanying this article is presented as submitted by the authors. It is available from: https://www.sap.org.ar/docs/publicaciones/filesarg/2025/10506_AO_Caceres_Anexo.pdf

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