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Admission of Children from Portuguese-Speaking African Countries to a Portuguese Early Childhood Medical Unit

Internamentos de Crianças dos Países Africanos de Língua Oficial Portuguesa numa Unidade Médica de Primeira Infância em Portugal

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ABSTRACT

Introduction: Medical assistance provided in Portugal to patients from Portuguese-Speaking African Countries (PALOP) is regulated by political evacuation protocols, although many patients come by their own means (OM). The aim of this study was to characterize PALOP patients admitted to a Portuguese early childhood medical unit (ECMU), comparing those evacuated under official protocols with those who arrived by OM, and reflect on their medical complexity and associated challenges.

Methods: We conducted an observational study, with a retrospective chart review of all PALOP patients (<18 years old) admitted to an ECMU of a tertiary hospital in Lisbon, Portugal, between January 2018 and December 2022. Demographic and clinical data were extracted from patients' medical records. Patients were grouped into evacuated patients (EP) and OM patients.

Results: A total of 71 patients were included, with 76.1% in the EP group and 23.9% in the OM group. Admissions increased throughout the study period, peaking in 2022. Most patients were male (62%), with a median age of 16 months. Own means patients were significantly older than EP patients (31 months *vs* 16 months, $p = 0.026$). Most EP patients originated from São Tomé and Príncipe and Cape Verde, whereas most OM patients came from Angola. The EP group had a higher prevalence of surgical, cardiac, and neurosurgical conditions, whereas the OM group showed a predominance of neurological and hematological diagnoses. Surgical intervention was required in 74.6% of cases, more frequent in EP patients ($p = 0.008$). Follow-up appointments were necessary for 95.8% of patients and 84.5% required social services support. The mortality rate was 84.5/1000, higher in the OM group (117.6/1000). Only 9.9% of patients returned to their country of origin.

Conclusion: Admissions of children from PALOP had an upward trend from 2018 to 2022, with most patients presenting complex comorbidities in both groups, and requiring highly specialized healthcare resources, prolonged hospitalizations, and readmissions. Mortality rate was considerable, and only a few returned to their country. These findings emphasize the need for improved coordination between countries to provide sustainable healthcare from both patient/families and healthcare system perspectives.

Keywords: Africa; Child; Chronic Disease; Global Health; Hospitalization; International Cooperation; Portugal

RESUMO

Introdução: A assistência médica a doentes evacuados de Países Africanos de Língua Oficial Portuguesa (PALOP) em Portugal é prestada ao abrigo de protocolos políticos de evacuação, embora muitos cheguem por meios próprios (MP). O estudo visa caracterizar os doentes PALOP internados numa Unidade de Pediatria de Primeira Infância (UPPI), comparando os doentes evacuados ao abrigo destes protocolos oficiais com os doentes que chegam por MP, e refletir sobre a complexidade médica e os desafios associados.

Métodos: Realizou-se um estudo observacional e retrospetivo de todos os doentes PALOP (< 18 anos) admitidos numa UPPI de um hospital terciário em Portugal, Lisboa, entre janeiro de 2018 e dezembro de 2022. Foram recolhidos dados demográficos e clínicos dos registos clínicos. Os participantes foram divididos em doentes evacuados (DE) e MP.

Resultados: Foram incluídos 71 doentes, 76,1% no grupo DE e 23,9% no grupo MP. As admissões aumentaram ao longo dos anos, com máximo em 2022. A maioria era do sexo masculino (62%), com mediana de idade de 16 meses. A idade foi estatisticamente superior no grupo MP comparativamente ao DE (31 meses *vs* 16 meses, $p = 0,026$). A maior parte dos DE era oriunda de São Tomé e Príncipe e de Cabo Verde, enquanto a maioria do grupo MP era de Angola. O grupo DE apresentou maior prevalência de doenças cirúrgicas, cardíacas e neurocirúrgicas, enquanto o grupo MP apresentou diagnósticos neurológicos e hematológicos. A intervenção cirúrgica foi necessária em 74,6% dos casos, sendo mais frequente no grupo DE ($p = 0,008$). Foi necessário seguimento em consultas em 95,8% dos casos e 84,5% necessitaram de apoio social. A taxa de mortalidade foi de 84,5/1000, superior no grupo MP (117,6/1000). Apenas 9,9% dos doentes regressaram ao país de origem.

Conclusão: As admissões de crianças dos PALOP aumentaram entre 2018 e 2022, a maioria com doenças complexas em ambos os grupos, com necessidade de cuidados médicos diferenciados, internamentos prolongados e reinternamentos. A taxa de mortalidade foi considerável, e poucos retornaram ao seu país. Esses achados salientam a necessidade de uma melhor coordenação entre os países para oferecer uma assistência médica sustentável, tanto do ponto de vista dos pacientes/famílias quanto do sistema de saúde.

Palavras-chave: Africa; Cooperação Internacional; Criança; Doença Crónica; Hospitalização; Portugal; Saúde Global

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KEY MESSAGES

- The first pediatric study addressing inpatient PALOP children coming to Portugal under international cooperation protocols reports a high burden of complex chronic diseases.
- Inpatient PALOP children have a much higher mortality rate (84.5/1000) comparing to a previous study including complex pediatric patients in Portugal (23.7/1000).
- Social issues within this population are a significant factor contributing to extended hospital stays.
- When comparing PALOP evacuated patients and PALOP patients arriving by their own means, both groups have similar clinical severity and prognosis.
- It is urgent to reflect on and revise the cooperation protocols to prevent healthcare system overload, ensure that countries of origin are held accountable, and facilitate the timely evacuation of seriously ill children.

INTRODUCTION

Medical care for evacuated patients (EP) from Portuguese-speaking African Countries (PALOP) is provided through international cooperation protocols established between healthcare systems, following the independence of the former Portuguese colonies (1977 - 1992).[1] Patient evacuation involves institutionalized circuits in both the country of origin and Portugal, with a variable response time.[2] Each country's agreement stipulates an annual patient quota, with a recommended range of 50 - 300 patients per country per year.[1,2] According to the Annual Report on Access to Healthcare in Establishments of the National Health System and Conventional Entities of 2019, the number of evacuees has largely exceeded these quotas, with 8305 patients evacuated between 2016 and 2019, when the stipulated number was 1050.[3] This discrepancy was especially pronounced for Guinea-Bissau and Cape Verde.[3]

In addition to patients who are officially evacuated, many others seek medical assistance on their own (OM) due to healthcare system limitations or delayed responses in their own countries.

This study characterizes PALOP patients admitted to an early childhood medical unit (ECMU) in Portugal between January 2018 and December 2022. It also compares evacuated patients (EP) with those seeking assistance by their OM, and describes the severity and complexity of their medical conditions, providing insights into the clinical challenges and specific healthcare needs of this population.

METHODS

Study design and patient selection

This study is an observational study, with retrospective chart review of all pediatric patients (< 18 years old) from PALOP admitted to a tertiary hospital ECMU in Lisbon, Portugal, between January 2018 and December 2022. It was approved by the Ethics Committee of Unidade Local de Saúde de São José (ref. 1724/2025).

Data collection

Patient data was collected on May 2023, from clinical records (SClinico®) and comprised demographic and clinical variables: sex, age, country of origin, year of admission, mode of arrival, hospital subunit where patients were initially admitted, reason for hospitalization, main comorbidities, diagnostic tests, surgical interventions, final diagnosis, length of hospital stay, number of hospitalizations, follow-up appointments, readmissions, return to the country of origin, mortality and need for social services' support.

The patients were divided into two groups: the group who arrived by their OM and the group of EP. The EP group included children who had been assessed by a medical board in their country of origin and were transferred following coordination with Portugal's Directorate-General of Health, sometimes bringing some documentation or medical reports. The OM group included those who, due to health reasons and without being evacuated through a medical board, were brought by their families, independently and at their own expense, in search of healthcare.

Data analysis

Statistical analysis was conducted using the Statistical Package for Social the Sciences (SPSS) version 29.0®, with the significance level set at 0.05. Descriptive statistics were presented as absolute frequencies and percentages for categorical variables, and as summary statistics for continuous variables. Percentages within variables were calculated excluding missing information. The groups were compared using chi-square test or Fisher's exact test (categorical variables) and Mann-Whitney test (continuous variables).

RESULTS

Demographic data

Between January 2018 and December 2022, 71 patients from PALOP countries were admitted to the ECMU, 54 (76.1%) were EP and 17 (23.9%) belonged to the OM

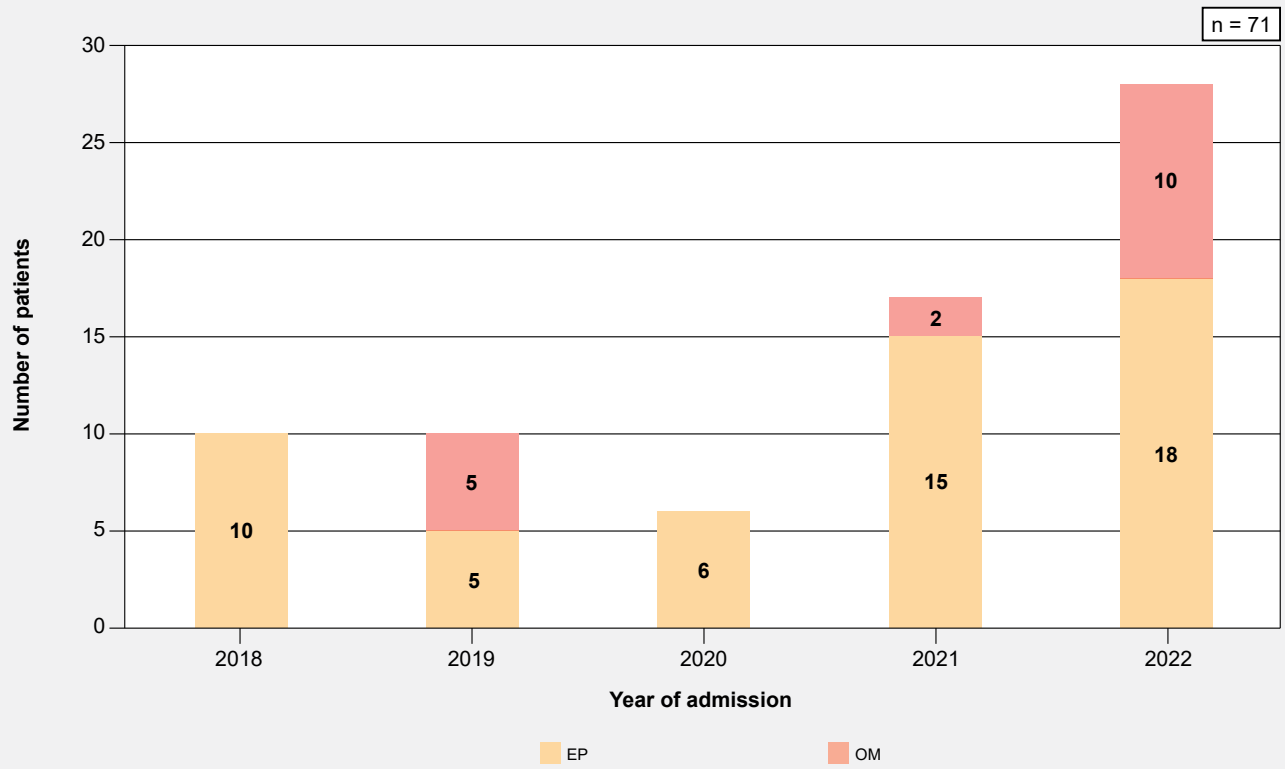

Figure 1 – Temporal evolution of patient admissions
EP: evacuated patients' group; OM: arriving by own means group

Table 1 – Demographic data of admitted children

		EP		OM		Total		*p*-value	
		n	%	n	%	n	%		
Sex	Male	32	59.3	12	70.6	44	62.0	0.400	
	Female	22	40.7	5	29.4	27	38.0		
Age	Minimum, days	30		27		27		**0.026**	
	Maximum, years	7		10		10			
	Median, months	14		31		16			
Country of origin	São Tomé and Príncipe	24	44.4	4	23.5	28	39.4		0.160*
	Cape Verde	16	29.6	1	5.9	17	23.9		0.054*
	Angola	3	5.6	10	58.8	13	18.3	< 0.001	**< 0.001***
	Guinea-Bissau	10	18.5	1	5.9	11	15.5		0.277*
	Mozambique	1	1.9	1	5.9	2	2.8		0.424*
Subunit of admission	Emergency service	36	66.7	14	82.4	50	70.4	0.220	
	Hospital appointment	18	33.3	3	17.6	21	29.6		

EP: evacuated patients' group; OM: arriving by own means group
*: *p*-values calculated for each country *versus* other countries (exact Fisher test)

group. The number of patients arriving increased progressively every year, except for a reduction in 2020, with less than 10% arriving in that year (Fig. 1). The peak of admissions was in 2022, with 28 (39.4%) patients admitted, with 10 (37.7%) of the OM group.

Of the 71 patients, 44 (62.0%) were male, and the median age was 16 months (Table 1). Own means patients had a median age of 31 months (min-max: 27 days-10 years),

and were older than EP patients (median age of 16 months, min-max: 30 days-7 years; $p = 0.026$).

The distribution of the country of origin was statistically significantly different between EP and OM patients ($p < 0.001$). The majority of EP were from São Tomé and Príncipe (n = 24; 44.4%), followed by Cape Verde (n = 16; 29.6%). In the OM group, Angola was the main country of origin (n = 10; 58.8%), followed by São Tomé and Príncipe (n = 4; 23.5%).

Regarding the evacuation process and its duration, we only had access to data from São Tomé and Príncipe, where the median time for patients' evacuation was 162 days, with a maximum of 758 days. The longest delay was of a patient diagnosed in Portugal with a severe polymalformative syndrome. Data regarding the evacuation process from other PALOP countries was unavailable.

Admission characteristics

In 50 (70.4%) cases, patients were admitted through the emergency department, while the remaining were admitted from scheduled hospital appointments. Admission in the emergency department was more frequent in OM group (Table 1).

The main admission purposes were related to Neurology (26.8%), followed by General Surgery (18.3%), Cardiology (16.9%) and Neurosurgery (16.9%) (Table 2). In the EP group, the most frequent conditions were surgical (24.1%, $p = 0.029$), cardiac (22.2%, $p = 0.057$) and neurosurgical (20.4%, $p = 0.270$), compared to the OM group, with a higher prevalence of medical conditions, particularly neurological (47.1%, $p = 0.056$) and hematological (23.5%, $p = 0.002$).

Among comorbidities at arrival, psychomotor developmental delay was observed in 40 (56.3%) patients, with a higher incidence among OM group patients (64.7% *vs* 53.7% in the EP group), although not statistically significant ($p = 0.577$). In 30 (43.7%) cases, the weight on admission was below the 3rd percentile (Fig. 2). Among the EP group this proportion was higher (48.1% *vs* 29.4% in the OM group), although no statistically significant difference was observed ($p = 0.263$). Absence of feeding autonomy was observed in 23 (32.4%) patients, more frequently in the OM group, accounting for 41.2% of patients ($p = 0.389$). The main conditions identified in these patients were global developmental delay, severe/refractory epilepsy, polymalformative syndromes, hydrocephalus and hypoxic-ischemic encephalopathy.

Clinical evolution

The median length of hospital stay was 10 days, ranging from 1 day to 270 days, with no statistically significant difference between the groups ($p = 0.559$). The longest hospitalization was of a previously evacuated patient readmitted at 14 months due to a Fournier's gangrene and severe malnutrition. This hospitalization was extended due to social factors that prevented the patient's discharge, and it ended with institutionalization.

Notable cases included a patient with multiple human bite injuries in the face, chest and genitals, requiring tracheostomy, nasogastric tube feeding and several reconstructive surgeries (EP group, 204 days); a patient with recessive type 6 heterotaxy syndrome needing multiple surgeries and complicated with several infections (EP group, 194 days); a patient with Krabbe disease, presenting gait regression (OM group,185 days), and a patient with esophageal atresia, microcephaly and developmental delay requiring multiple surgeries and nutritional rehabilitation (EP group, 154 days).

Regarding the number of hospitalizations per patient, 18 (25.4%) patients experienced at least one readmission, with similar findings observed in both groups ($p = 0.751$). The maximum number of hospitalizations was nine, in a patient with esophageal atresia (EP group), whose readmissions were mainly motivated by the need for several esophageal dilations and nutritional rehabilitation. Other patients also had multiple readmissions, including a Krabbe disease

Table 2 – Diagnosis reported at the time of patients' arrival

Organ/ system	EP		OM		Global		*p*-value
	n	%	n	%	n	%	
Neurological	11	20.4	8	47.1	19	26.8	0.056
Surgical	13	24.1	0	0.0	13	18.3	**0.029**
Cardiac	12	22.2	0	0.0	12	16.9	0.057
Neurosurgical	11	20.4	1	5.9	12	16.9	0.270
Oncological	5	9.3	1	5.9	6	8.5	0.662
Hematological	1	1.9	4	23.5	5	7.0	**0.002**
Gastrointestinal	1	1.9	1	5.9	2	2.8	0.381
Others	7	13.0	2	11.8	9	12.7	1.000

EP: evacuated patients' group; OM: arriving by own means group

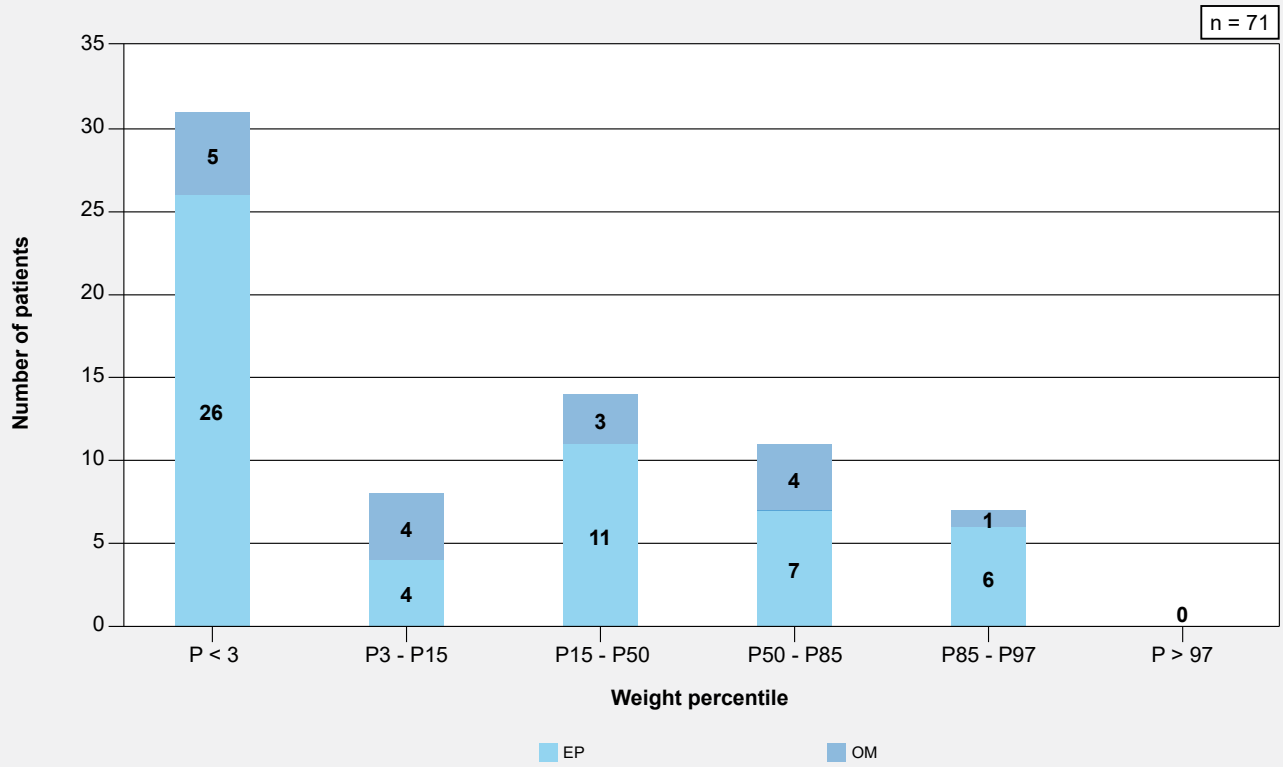

Figure 2 – Admission weight percentiles
EP: evacuated patients' group; OM: arriving by own means group

case from the OM group, requiring symptomatic management and treatment of infectious complications, and two patients from the EP group – one with stage 5D chronic kidney disease and another with neurogenic bladder. Readmissions in the latter two cases were primarily due to recurrent urinary tract infections, including some caused by multidrug-resistant organisms.

A significant proportion of patients underwent a variety of specialized diagnostic exams, as detailed in Table 3.

Genetic studies established the diagnosis of various rare disorders, such as progressive familial intrahepatic cholestasis type 1 (PFIC1), Townes-Brocks syndrome, visceral heterotaxy syndrome type 6, spinal muscular atrophy, contiguous gene deletion syndrome and osteogenesis imperfecta in the EP group, as well as Alagille syndrome, neuronal ceroid lipofuscinosis and metachromatic leukodystrophy in the OM group.

Metabolic studies yielded conclusive results for three patients, identifying two cases of mitochondrial disease, one in each group, and one case of phenylketonuria in the

Table 3 – Diagnostic tests performed

Exams	EP		OM		Global		*p*-value
	n	%	n	%	n	%	
Magnetic resonance imaging	24	44.4	8	47.1	32	45.1	1.000
Genetic study	16	29.6	7	41.2	23	32.4	0.389
Metabolic study	11	20.4	7	41.2	18	25.4	0.112
Videofluoroscopic swallowing study	10	18.5	4	23.5	14	19.7	0.730
Esophageal transit	12	22.2	2	11.8	14	19.7	0.493
Retrograde cystourethroscopy	9	16.7	0	0.0	9	12.7	0.102
Others	12	22.2	1	5.9	13	18.3	0.140

EP: evacuated patients' group; OM: arriving by own means group

EP group.

At admission, the patients were screened for infectious diseases, namely 63.4% (n = 45) for human immunodeficiency virus infection, 60.6% (n = 43) for hepatitis B and C, 42.3% (n = 30) for tuberculosis and 11.3% (n = 8) for syphilis. Among patients who were not screened upon admission, eight (26.8%) had previously been tested. Additionally, colonization screening for extended-spectrum beta-lactamase producing *Escherichia coli* and *Klebsiella pneumoniae* (ESBL) and methicillin-resistant *Staphylococcus aureus* (MRSA) was performed in 70.4% (n = 50) cases, with ESBL positivity detected in 49.3% (n = 35) and MRSA positivity in 9.9% (n = 7).

Concerning patients with absence of feeding autonomy (n = 23; 32.4%), 11 (47.8%) required gastrostomy procedures, with a higher frequency in the OM group (n = 5; 29.4%) compared to the EP group (n = 6; 11.1%); however, this difference was not statistically significant (p = 0.389).

Surgical interventions were necessary in 53 (74.6%) cases, more frequently in the EP group, with a statistically significant value (p = 0.008). The main interventions included Nissen fundoplication, ventriculoperitoneal shunt placement, brain space-occupying lesion resection, correction of atrial and ventricular communications, and posterior urethral valve resection.

Final diagnoses are described in Table 4, with the most frequent being neurological. The frequency of hematological pathology was higher among OM group (p = 0.01). No significant difference was identified in the remaining diagnoses.

In 53 (74.6%) cases, the medical diagnosis suspicion at the country of origin matched the final diagnosis. Despite this, most cases involved much more complex or systemic diseases, and many patients also presented several comorbidities.

Follow-up and outcomes

The median observational period of the patients during the study was 11 months (min - max: 1 month - 5 years). Follow-up appointments were necessary in 68 (95.8%) cases, with a median of five specialty appointments per patient. The maximum number of appointments per patient was 11, referring to a patient with osteogenesis imperfecta.

Only seven (9.9%) patients returned to their country of origin until December 2022. The clinical conditions of these patients were congenital heart diseases and nephroblastoma.

Do-not-resuscitate decisions were implemented in five (7.0%) cases, as part of a palliative care plan. Overall, six (8.4%) deaths were observed, four in the OM group and two in the EP group. The mortality rate was 84.5/1000, higher in the OM group (117.6/1000), with no statistical significance (p = 0.625). Half of the deceased patients had signed do-not-resuscitate declarations.

Social service support was needed by 56 (78.9%) patients, with four (5.6%) requiring institutionalization. Among patients who did not require social services' support, three (4.2%) died during the hospitalization period.

DISCUSSION

Our results underline several noteworthy aspects that warrant discussion and reflection.

Table 4 – Final diagnoses of the patients

Medical area	EP		OM		Global		*p*-value
	n	%	n	%	n	%	
Neurological	15	27.8	7	41.2	22	31	0.370
Genetic/Congenital	14	25.9	7	41.2	21	29.6	0.240
Cardiovascular	15	27.8	2	11.8	17	23.9	0.213
Surgical	16	29.6	1	5.9	17	23.9	0.054
Hematological	4	7.4	6	35.3	10	14.1	**0.010**
Neurosurgical	8	14.8	1	5.9	9	12.7	0.677
Oncological	6	11.1	1	5.9	7	9.9	1.000
Gastrointestinal	4	7.4	1	5.9	5	7.0	0.830
Respiratory	2	3.7	1	5.9	3	4.2	0.697
Endocrinological	1	1.9	1	5.9	2	2.8	0.381
Ophthalmological	2	3.7	0	0.0	2	2.8	0.421
Nephrological	1	1.9	0	0.0	1	1.4	0.572
Infectious	0	0.0	1	5.9	1	1.4	0.730
Others	3	5.6	0	0.0	3	4.2	0.321

EP: evacuated patients' group; OM: arriving by own means group

Trends in admissions and clinical complexity

The increase in the admissions observed throughout the study period aligns with the Annual Report on Access to Healthcare in Establishments of the National Health System and Conventional Entities of 2019.[3] This coincides with an increase in both the severity and complexity of patients' medical conditions, evidenced by higher mortality rates, extended lengths of stay, frequent readmissions and the need for specialized procedures, such as gastrostomy or ventriculoperitoneal shunts, as seen in a previous study.[4]

Also, several studies report an increase in hospitalizations of children with complex chronic conditions across various countries[4,5] namely neuromuscular, congenital/genetic, and cardiovascular conditions,[4,6] with the first two also representing the most common in our sample (Table 2). This association of comorbidities likely contributed to longer hospital stays.[6] Indeed, the length of stay in our cohort was longer than that reported in a national study of pediatric complex cases.[7]

Our sample had a mortality rate of 84.5/1000 patients, which was significantly higher than the 23.7/1000 reported in a previous Portuguese study of complex pediatric patients,[7] further underscoring the severity of our cases. Advances in diagnostic capacities and multidisciplinary teams, even in low-income countries, may be contributing to more accurate and timely diagnoses of complex conditions. However, we speculate that the COVID-19 pandemic, which strained healthcare systems and delayed care for non-COVID patients, worsened clinical conditions at presentation and increased comorbidities, manifesting as malnutrition, developmental delay and absence of feeding autonomy. The pandemic may also explain the decrease in numbers in 2020 and the subsequent peak in admissions in 2022.

Contrary to the possible initial assumption that OM patients might present with less severe conditions, which could explain why they were not evacuated, our results indicate otherwise: a greater number of complex diseases were diagnosed, and gastrostomy procedures were more frequent, aligning with the higher prevalence of neurological conditions associated with impaired autonomous feeding in this group. In addition, OM patients had a higher mortality rate (117.6/1000) and older median age (31 months *versus* 16 months in the EP group), possibly reflecting delayed diagnosis and treatment with poorer outcomes. There were no statistically significant differences in hospital stay.

However, surgical procedures were more common in the EP group, likely due to the possibility that surgical diseases are more easily and accurately diagnosed, prompting earlier initiation of evacuation procedures. Also, malnutrition was extremely high in the EP group, with almost half of the patients with low weight (48.1%). Malnutrition is a known issue in African hospitals[8] and, while not statistically significant, this is concerning, given that EP patients came from healthcare facilities. Furthermore, approximately one-third of patients were referred with a diagnosis that differed from the final one, possibly reflecting the limited diagnostic resources in these countries.

Admission planning

The inadequate planning here demonstrated by the delay in patient evacuation, the unpredictability in arrival, with two thirds of patients admitted in the emergency department, and diagnostic inaccuracies must be addressed, and better coordination is mandatory. This could begin with the creation of special teams for pre-evacuation assessments, more accurate diagnoses and criteria for evacuation, as well as predictable patient entry. The widespread use of telemedicine could facilitate patient care and clinical discussion before their arrival in Portugal, minimizing possible comorbidities and optimizing timely diagnosis and intervention approaches.

It is worth mentioning that, from our practice, most patients lacked clinical reports, even those transferred directly from a hospital, so their medical histories were mainly obtained from parents/caregivers' information. When clinical reports were available, they had sparse information, contributing to the overload of the emergency department resources.

In order to control hospital infections from multidrug-resistant organisms, we screened PALOP patients for colonization: MRSA colonization was lower (n = 7; 9.8%) than reported in the African continent (33%),[9] while ESBL colonization was higher (n = 35; 49.2%), compared to a previous study in children under five years of age in Guinea-Bissau (32.6%).[10] Despite limited literature, the available data emphasizes the potential dissemination risk of these resistant strains from PALOP patients,[11] with urgent need for standardized screening procedures, either on arrival or before patients are evacuated.

Sociocultural and socioeconomic factors

The family's financial capacity for self-transportation, less bureaucracy in border control, and more flights from these countries to Portugal may have contributed to the rise in OM admissions.

Furthermore, the fact that 13.6% of the migrant community in Portugal comes from PALOP countries[12] likely increases the chances of OM patients having established support networks in our country. Unfortunately, once they arrive, and given that they are not covered by any established international protocol, these families do not receive any social or economic support from their home countries. Accordingly, this worsens the emergency overload, as most patients lack accommodation outside the hospital.

The case described above involving a child admitted with Fournier's gangrene in the context of severe malnutrition illustrates the living conditions endured by these families in Portugal and the inadequacy of available social support systems. In fact, a previous study showed that 81.8% of the immigrant African pediatric population admitted to a Portuguese pediatric unit faced social challenges, particularly poverty.[13] Although 60 (84.5%) patients received social support, this remains inadequate given the complexity and bureaucratic demands. Post-discharge, families often require ongoing assistance with food, clothing, medication, and emergency housing. According to international cooperation protocols, these outpatient needs should be addressed by the patient's home country,[1,2] but this is not consistently fulfilled. Some children in our sample (n = 4; 5.6%) required institutionalization.

Additionally, the low rate of return to the country of origin (n = 7; 9.9%) due to clinical or social reasons highlights the chronic burden on Portugal's healthcare system.

The social needs of these patients prolong and complicate the hospital discharge process, leading to healthcare system overload, increased risk of infectious complications, and worsened quality of life for both children and their families. Additionally, the relocation of patients and caregivers away from their home countries causes feelings of alienation and places them in a socially vulnerable position, especially for those with poor prognoses. Moreover, these patients often require full-time caregivers, which limits parental employment and children's social integration, leading to isolation and a higher social and economic burden that must be addressed.

Although most patients in our sample were evacuated, the time-consuming nature of this process often leads many parents to bring their children to Portugal by their own means. This decision places them in an even more complex and vulnerable social situation upon arrival. This requires immediate attention, as the proportion of such patients may continue to rise.

In a time of health system crisis with lack of resources, it is crucial to reflect on established protocols with PALOP countries and invest in timely pre-evacuation patient assessments and planning, scheduling patient admissions to avoid overburdening emergency teams. Political intervention is necessary to hold countries of origin accountable for timely evacuation and post-discharge social support.

Limitations

This study presents some limitations. The retrospective design relied on clinical records, with limited information available from the patients' countries of origin, namely the lack of systematic data regarding the evacuation process in certain countries (e.g., time for evacuation). We also recognize the small sample size from a single medical unit which can limit the generalizability of the findings. Nevertheless, this unit is one of the largest pediatric hospitals in the country, receiving a significant proportion of evacuated patients from PALOP (between 2009 and 2019, received 717 children).[14] On the other hand, inclusion was limited to hospitalized patients, potentially introducing selection bias toward more severe clinical cases and limiting applicability to other populations and healthcare settings. Lastly, no objective measures or scales were used to classify the clinical complexity of patients or their social support needs, preventing determination of the overall burden of care.

CONCLUSION

To the best of our knowledge, this is the first pediatric study addressing inpatient PALOP children coming to Portugal under International Cooperation Protocols.

Our results showed that the number of patients doubled during the study period, and that these patients have complex and multisystem conditions requiring highly specialized care, posing significant challenges for medical teams and the healthcare system, and imposing political and social reflections on this topic. Because some patients arrive in life-threatening condition, more effective operationalization of protocols is warranted.

PREVIOUS AWARDS AND PRESENTATIONS

This work was presented as a poster at the "*23.º Congresso Nacional de Pediatria"* in Lisbon, on October 26th, 2023.

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The authors have declared that no AI tools were used during the preparation of this work.

AUTHOR CONTRIBUTIONS

NB, RN, MA: Study design, data collection and analysis, writing and critical review of the manuscript.

RP: Study design and critical review of the manuscript.

PR: Study design, data analysis, writing and critical review of the manuscript.

SS, MA, AIC, SF, DA, BC, RM: Critical review of the manuscript.

All authors approved the final version to be published.

PROTECTION OF HUMANS AND ANIMALS

The authors declare that the procedures were followed according to the regulations established by the Clinical Research and Ethics Committee and to the Helsinki

Declaration of the World Medical Association updated in October 2024.

DATA CONFIDENTIALITY

The authors declare having followed the protocols in use at their working center regarding patients' data publication.

CONFLICTS OF INTEREST

The authors have no conflicts of interest to declare.

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