

NURSING PRACTICE: DAY HOSPITAL OF THE PEDIATRIC HEMATOLOGY AND ONCOLOGY CENTER OF RABAT, MOROCCO

A. ACHRIK, M. KADDOURI, M. MESKINI, M. BAHMOU, M. BETTAH, Z. ISFAOUN, N ELANSARI, A. KILI, M. ELKHORASSANI, L. HESSISSEN

Ibn Sina University Hospital, Pediatric Oncology Department, RABAT, MOROCCO

INTRODUCTION

The Day Hospital (out patient clinic) is a core sector of the Pediatric Hemato-Oncology Service (SHOP) in Rabat, Morocco, part of the GFAOP network and a focus country for the WHO Global Initiative for Childhood Cancer. New nurses at the Pediatric Hemato-Oncology Service (SHOP) in Rabat, Morocco, complete two weeks of theoretical training and three to four weeks of mentorship. Practical skills are learned at the bedside while managing the unit's significant workload. Nurses receive 10 hours of continuing education annually, in line with SIOP Baseline Nursing Standards.

OBJECTIVE

The study aims to describe nursing practices and patient care activities in the Day Hospital of the Pediatric Hematology and Oncology Center of Rabat, Morocco, from 2020 to 2024, focusing on hospitalizations, chemotherapy administration, transfusions, and peripheral venous catheter (VVP) placements.

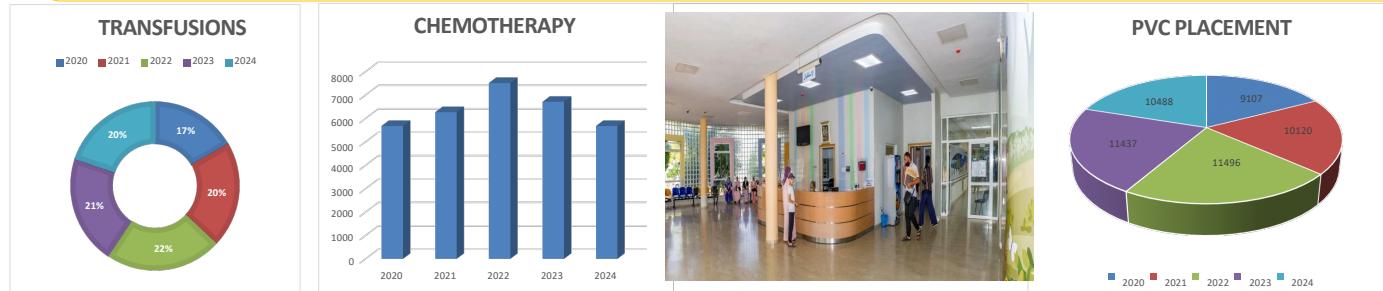
METHOD

A workload analysis of day hospital nursing procedures (2020–2024) was conducted based on daily records documented by nurses and compiled by secretaries for reporting and administrative purposes.

RESULTS

The Day Hospital's nursing team consists of 2 to 3 nurses covering 30 treatment stations, working 12-hour shifts from 8 AM to 8 PM, seven days a week. They care daily for a median of 50 children. On average, the Day Hospital receives 870 patients per month, with a total of 10,500 admissions in 2024, including pediatric oncology patients as well as children with thalassemia, hemophilia, and sickle cell disease.

Nursing procedures are dominated by PVC placement, which accounts for 53% of activities, followed by chemotherapy at 33%, which has remained stable over time. Around 30 port-a-caths are placed annually due to coordination and staffing limitations. Transfusions represent 14%, a higher percentage than in the transplant unit but similar to inpatient hospitalization. This high-volume care is facilitated by the presence of a nearby parent house, which supports families and contributes to continuity and efficiency of treatment.



Nurses activities in the Day hospital from 2020 to 2024

DISCUSSION

Over the years, Day Hospital activity has shown variations related to the establishment of additional pediatric oncology units in the country and changes in treatment protocols. The increasing use of more intensive chemotherapy regimens has required hospitalization of patients who might previously have been managed on an outpatient basis. PVC placement remains the most frequent nursing procedure, reflecting the essential role of reliable intravenous access in pediatric care. Variations in chemotherapy and transfusion rates highlight the evolving needs of patients and the importance of flexible nursing planning and resource allocation to maintain quality care.

CONCLUSION

As part of ongoing efforts to improve pediatric oncology care, the broader use of implantable ports (port-a-cath) has become a priority to reduce reliance on PVC placements. This approach would enhance patient comfort and quality of life while freeing nurses to focus on essential person-centered care. Effective nurse training on port management will be crucial to ensure safe and coordinated use with children and their families. Optimizing nursing care in this way is a key strategy for achieving the WHO GICC objectives, while promoting child and family satisfaction and active involvement in care.



NURSING PROCEDURE ANALYSIS: INPATIENT CLINIC AT THE PEDIATRIC HEMATOLOGY AND ONCOLOGY CENTER OF RABAT, MOROCCO

A. ACHRIK, M. KADDOURI, M. MESKINI, M. BAHMOU, M. ELBATTAH, N. ELANSARI, L. HESSISSEN, M. ELKHORASSANI, M. ELKABABRI, A KILI

Pediatric Hematology and Oncology Center, Rabat, Morocco.

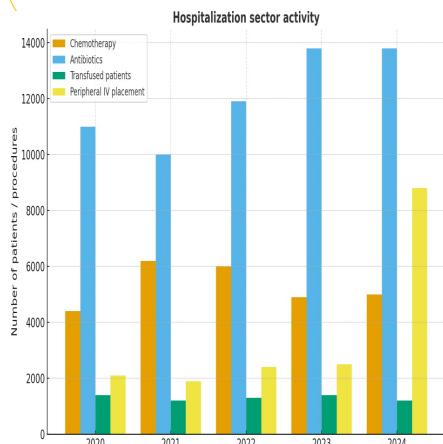


INTRODUCTION

The Pediatric Hemato-Oncology Service (SHOP) in Rabat, Morocco is a member of Francophone-African Pediatric Oncology Group (GFAOP) and pilot site for the WHO Global Initiative for Childhood Cancer. Optimization of nursing care is key to achieve 60% survival by 2030. An initial evaluation was conducted to determine time spent on nursing procedures to document potential for person-centered care as recommended by WHO. Two to three nurses attend the inpatient unit (23 beds) per day shift.

METHODOLOGY

A retrospective review of inpatient nursing procedural tasks from 2020 to 2024 was conducted. Nurses document daily procedures in a registry, and secretaries compile the data for activity reports and administrative use.



Virtual reality to prevent procedure related pain – donation from Basket aux pieds association

RESULTS

The inpatient unit has a capacity of 23 beds and is staffed by two nurses per team, working on a 12/36-hour shift rotation. The service operates 24/7, managing emergencies and receiving patients at all times. Each year, approximately 300 new cases are admitted, two-thirds representing pediatric oncology and one-third benign hematology. On average, the unit records 100 inpatient admissions per month, with a total of 1,258 admissions in 2024.

Nursing activity is dominated by antibiotic administration (55%), followed by chemotherapy (24%), with a slightly decreasing trend. Peripheral venous catheter (PVC) placement increased from 10.5% in 2020 to 15.5% in 2024. The unit is able to provide around 30 port-a-cath placements per year; however, this remains limited due to coordination challenges and a shortage of human resources. Transfusions are the least frequent procedure, decreasing from 7% in 2020 to 5.5% in 2024.

Overall, nursing procedures account for an estimated 90% of care, leaving only about 10% for family- and child-centered (FCC) activities such as partnership with families, communication, respect, and compassion. This highlights both the technical demands placed on nurses and the need to strengthen capacity to ensure more balanced and holistic care.

DISCUSSION

The inpatient unit manages a high-acuity pediatric population, with antibiotics accounting for 55% of nursing procedures, reflecting frequent infections. PVC placements increased to 15.5% in 2024, while only around 30 port-a-caths are placed annually due to coordination and staffing limitations. Chemotherapy (24%) and transfusions (5.5%) are less frequent.

Overall, 90% of nursing time is spent on technical procedures, leaving only 10% for family- and child-centered care, highlighting the impact of workload on holistic patient support.

CONCLUSION

As part of Morocco's commitment to improving childhood cancer survival, nurses play a central role in inpatient care. The high proportion of infection- and access-related procedures, combined with the limited number of port-a-cath placements, underscores the need to expand access to implantable ports. This would help reduce the technical burden on nurses, improve patient comfort, and support more efficient, less invasive care while allowing greater focus on family- and child-centered activities.

KEY NURSING PROCEDURES IN THE STEM CELL TRANSPLANT UNIT AT PEDIATRIC HEMATOLOGY AND ONCOLOGY CENTER OF RABAT, MOROCCO

M.KADDOURI, A.ACHRIK, M.BAHAMOU, M.BATTAH, M.ELMESKINI, M.EL KABABRI, M.LAKHRISSI, L.HESSISSEN

Ibn Sina University Hospital, Pediatric Oncology Department, RABAT, Morocco

INTRODUCTION

The bone marrow transplant unit at The Pediatric Hemato-Oncology Service (SHOP) Rabat (member Francophone-African Pediatric Oncology Group GFAOP network) is a WHO Global Initiative for Childhood Cancer focus country aiming for 60% overall survival by 2030. Transplant nursing requires specialty onboarding and continuous education programs as well as appropriate staffing for patient care

OBJECTIVE

To develop a patient acuity-based staffing model for the transplant unit that accounts for the peak workload during the post-allogeneic transplant period and the high frequency of resource-intensive procedures like antibiotic therapy.

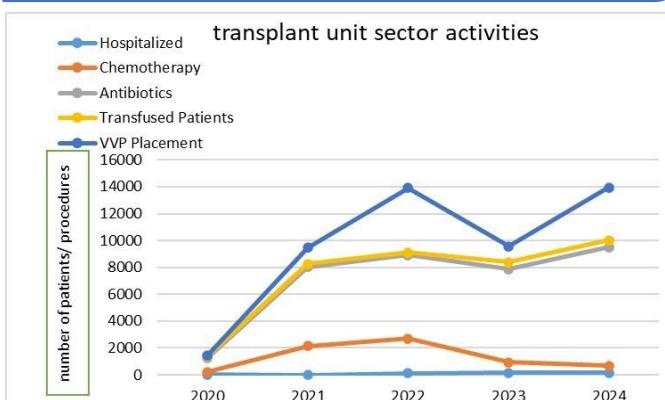
RESULTS

The transplant unit's nursing team consists of one nurse for six beds, covering both autologous and allogeneic transplants. Nurses work on a 12/36-hour shift rotation. In 2024, SHOP performed 12 allogeneic and 16 autologous transplants. Antibiotic administration represented 60% of all nursing procedures. Peripheral venous catheter (PVC) placement accounted for 23%, with an increase recorded in 2024. Central lines are inserted by anesthesiologists prior to cytapheresis in autologous transplants and before graft infusion in allogeneic transplants. Nurses are responsible for the monitoring and care of these central lines throughout the transplant process. Chemotherapy administration represented 13% of procedures in 2021 and 2022, with lower frequencies observed in 2023 and 2024. Transfusions accounted for 4% of procedures, with variations across the years. The workload is highest during the first 15 days following an allogeneic transplant.



METHOD

A workload analysis of nursing procedures (2020-2024) was conducted using daily records documented by nurses and compiled by secretaries for activity reports and administrative use.



DISCUSSION

Our unit began stem cell transplantation in 2014 with autologous transplants, followed by the first allogeneic procedure in 2018. Activity slowed during the COVID-19 pandemic but has since resumed steadily, with the team gaining expertise over time.

In 2024, 28 transplants were performed (12 allogeneic and 16 autologous). The unit operates with one nurse for six beds on a 12/36-hour shift rotation. Nursing workload is heaviest during the first 15 days post-allogeneic transplant.

Antibiotic therapy represents 60% of nursing procedures, while PVC placement accounts for 23%, with central lines inserted by anesthesiologists but monitored and managed by nurses. Chemotherapy has decreased since 2023, and transfusions represent 4% of activity.

These data underline the intensity and complexity of nursing tasks in the transplant unit, with direct implications for care quality and patient safety, reinforcing the need for adequate staffing and continuous training.

CONCLUSION

The pediatric transplant unit at SHOP plays a key role in the success of bone marrow transplants in Morocco where only two hospitals offer this service. Nurses well trained in pediatric stem cell transplantation are essential for successful outcomes. This study demonstrated that at least two nurses are required for all shifts during the first 15 days post-allogeneic transplants to optimize care thus moving towards meeting SIOP Baseline Nursing Standards.

