

Effect of a Clinical Pathway on Outcome of Children with Hemolytic Anemia

Thesis

*Submitted for Partial Fulfillment
of Doctorate in
(Pediatric Nursing)*

By

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*✍️ **Amira Adel Mohamed Nassar***



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ABSTRACT

The child suffering from hemolytic anemia is demanding and requiring the integration of skills from numerous different specialties. These children often have prolonged hospitalizations, which may be marked by many complications. In an attempt to provide and maintain a consistently high standard of care. Therefore the application of a clinical pathway for children with hemolytic anemia is urgent. **Aim of study:** This study was aimed to design, implement and evaluate the effect of a clinical pathway for children with hemolytic anemia. **Research design:** A quasi experimental research design was used in this study. **Settings:** The study was carried out at in-patient departments and out patient clinics in the pediatric hematological hospitals affiliated to Ain Shams University and Benha Children Hospital **Subjects:** A purposive sample composed of seventy (70) children with hemolytic anemia was recruited for the study. Half of the sample was considered as the study group those who were exposed to the clinical pathway and the control group who exposed to routine hospital care. **Tools:** Five tools were used for data collection: - questionnaire sheet, -Medical data sheet, - Patient assessment sheet, - Complication monitor sheet and **followl** pathway design for the study group. **Results** of the study revealed that there was no statistically significant difference between the study and control groups on admission but there was a statistically significant difference between the study and control groups after the implementation of the clinical pathway for the study group compared with the routine hospital policy care for the control group manifested by less hospital stay, fewer complications and less readmissions. **Conclusion:** Children with hemolytic anemia to whom clinical pathway was applied fewer complications, less hospital stay and less readmission than those who will receive routine hospital care. **Recommendations:** Clinical pathway should be integrated into the routine nursing care along with intervention for children with hemolytic anemia.

Key words: Clinical pathway, Hemolytic anemia, Thalassemia, Sick cell.



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INTRODUCTION

Anemia is the term which means that the number of red blood cells in a person's blood is less than normal or the red blood cells don't contain enough hemoglobin. Hemoglobin is an iron-rich protein in red blood cells that gives blood its red color (*Schwartz, 2011*).

Hemolytic anemia is a different form of anemia in which red blood cells are destroyed and removed from the bloodstream before their usual lifespan is up. Healthy red blood cells usually live about 120 days (4 months) in the bloodstream before the body removes them. In hemolytic anemia, the body breaks down and removes red blood cells faster than it can replace them; the breakdown of red blood cells is called hemolysis (*Vivek, 2011*).

The most common type for children is hemolytic anemia. Types are inherited which means the child is born with them, one or more of the genes that control the production of red blood cells are defective causing the bone marrow to make abnormal cells. Acquired which means that they develop in response to some other disease or factor (*Brichard, 2010*).

Hemolytic anemia represents approximately 5% of all anemia worlds wide. Morbidity is dependent on the etiology of hemolytic anemia and the underlying disorder such as sickle cell anemia and Thalassemia (*Redd, 2009*).

Clinical pathway is a strategy that reduces resource utilization while maintaining the quality of care. The most popular methods intended to meet intense pressures to reduce the costs of health care. Clinical pathways are management plans that display goals for patients and provide the corresponding ideal sequence and timing of staff actions to achieve those goals with optimal efficiency (*Annie and Justin, 2009*).

Process of a developing a clinical pathway begins with the formation of health care team, making professionals from all sectors involved in a particular area. The team identifies the types of patients who require significant resources. Usually, this population is characterized by high cost, high volume or high risk. The team may also target such populations to decrease variability in physician practice (*Stephen, 2010*).

Goals of pathways are to improve quality using printed standards of care, improve documentation of the care delivered, and improve communication about daily goals between all team members, patients and families, standardize inpatient chart format throughout the hospital, and increase efficiency of care. Pathway provides physicians and nurses with the standards of care and provides a mechanism for documentation at inpatient charts (*Neyens, 2007*).

Clinical pathway is a tool for achieving coordinated care and desired health outcomes within an anticipated time frame, by

using the appropriate resources available. A clinical pathway is a blueprint that guides the clinician in the provision of care (*Blancett, 2007*).

Significance of the Study:

Children suffering from hemolytic anemia are demanding and requiring the integration of skills from numerous different specialties. These children often have prolonged hospitalizations, which may be marked by many complications, in an attempt to provide a consistently high standard of care as well as maintaining child health. Therefore, the application of clinical pathway for children with hemolytic anemia is a necessary.