Incorporating Nursing Diagnosis and King's Theory in the O.R. Documentation

By J. Gill, L. Hopwood-Jones, J. Tyndall, S. Gregoroff, P. LeBlanc, C. Lovett, L. Rasco and A. Ross

Introduction

Perioperative nursing is based on critical decision making, goal setting, and evaluation of patient outcomes. The Department of Nursing at the Hamilton Civic Hospitals adopted a conceptual framework using Nursing Diagnosis to reflect patient-focused care. The operating room staff took this opportunity to change the documentation to adequately reflect the practice of perioperative nursing.

The Hamilton Civic Hospitals is composed of two separate units, the Hamilton General Division and the Henderson General Division. The Hamilton General Division is the regional centre for cardiac catheterization, open-heart surgery, major trauma and burns. Other services provided include Neurosurgery, Orthopedics, ENT, Plastics, Ophthalmology, Urology, Dental and General Surgery. The Henderson General Division provides the community with services in Obstetrics, Gynecology, General and Dental Surgery, Orthopedics, Urology, Plastics and ENT. Surgical treatment of patients from the adjacent regional cancer centre is performed at the Henderson.

Abstract

The Operating Rooms at the Hamilton Civic Hospitals share the same documentation format. The need to revise the documentation to incorporate the standards from the Operating Room Nurses Association of Canada was recognized. The Hamilton Civic Hospitals, Department of Nursing, adopted Imogene King's Conceptual Framework as the model for nursing practice. The flowsheet developed for the Operating Rooms incorporated both King's Theory and Nursing Diagnosis.

Conceptual Framework

The Hamilton Civic Hospitals adopted Imogene King's Conceptual Framework as the model for decision-based practice. King's nursing theory identifies the universal concepts of nursing, individual, health and environment which are incorporated in the nursing philosophy for the Hamilton Civic Hospitals.

King's theory is based on three dynamic, interacting systems (personal, interpersonal, and social) operating in an open systems network. King believes the behaviour of patients in their environment is understood in terms of personal (individual) which involves perception, growth and development, body image, space and time; interpersonal (groups) which involves concepts of interaction, communication, transaction, role, stress; as well as social (society) systems which involve authority, power, status and decision making. In the operating room (environment), the nurse and the patient (personal) come together (interpersonal) to achieve optimum health.

The focus of King's theory is mutual goal setting. In the pre-operative phase, the nurse and the patient identify goals to be achieved. The nurse initiates nursing diagnosis incorporating the goals, and develops the appropriate nursing interventions to achieve these goals.

Authors

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Nursing Diagnosis

A nursing diagnosis statement consists of:

1. **a patient problem** (actual or potential)
2. **a cause of the problem** (related to)
3. **signs and symptoms** (as evidenced by - only in actual problems)

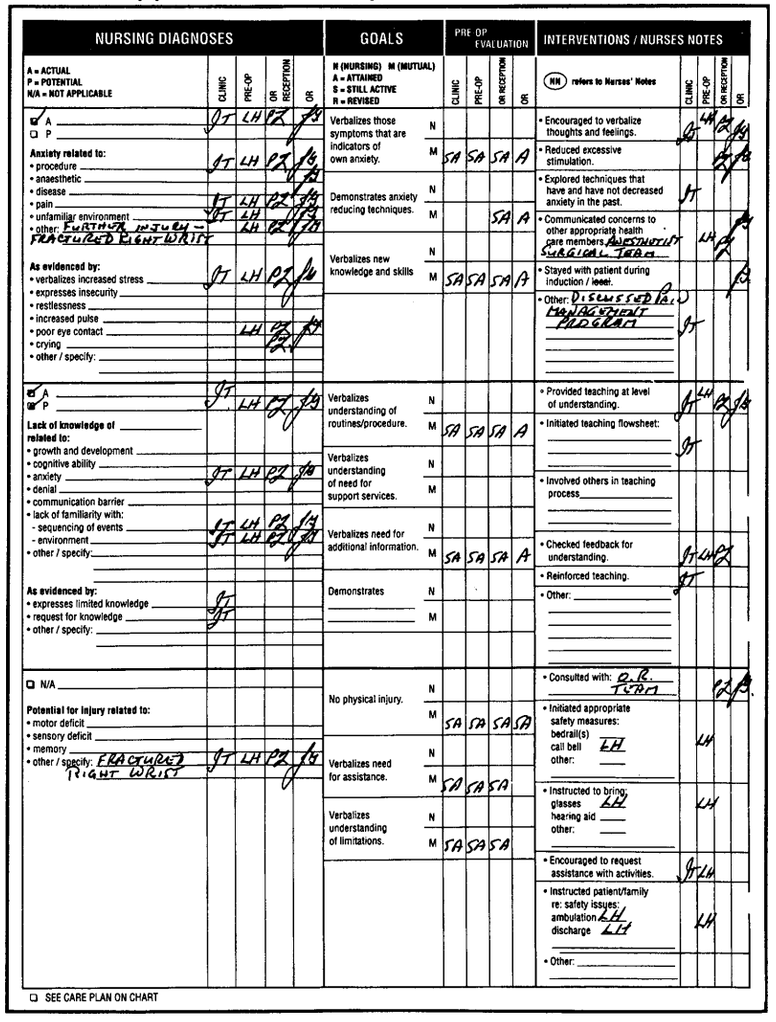
Nursing diagnosis is the statement of a potential or actual altered health status of a client, which is derived from nursing assessment and which requires intervention from the domain of nursing. Nursing diagnosis is the second step of the Nursing Process. Nursing diagnosis serves to promote goal-oriented, assessment-based practice. It also promotes consistency in decision-based practice across theoretical or conceptual models.

Development

The staff in the Operating Room recognized the need to incorporate Nursing Diagnosis and King's Conceptual Framework in the system of documentation of perioperative patient care. A committee was established with representation from the Operating Rooms of both divisions. The goal of the committee was to create a comprehensive nursing flowsheet that incorporated both nursing process and nursing diagnosis within King's conceptual framework. A literature search revealed little information regarding the use of nursing diagnosis during the perioperative phase.

In identifying the magnitude of this change process, inservice programs related to Nursing Diagnosis and King's Theory were organized. The staff was instrumental in identifying the nursing diagnoses related to the perioperative nursing care provided in the operating room. Following these formal inservice sessions, time was provided weekly for small group orientation to the actual documenting process using mock case scenarios. It was evident that the staff were familiar with required perioperative documentation, however, they now needed to review documentation within the context of Nursing Diagnosis and King's Theory. Guidelines for documentation were identified, incorporating the ORNAC standards, and were made available to every staff member. Within six month, the first trial flowsheet was implemented.

Appendix 1 - Perioperative Flowsheet #1



Implementation

Based on the length of cases, the daily workload, and the uniqueness of the individual OR units, implementation varied slightly between the two divisions. At the Henderson, implementation of the flowsheet was introduced gradually. The flowsheet was introduced over an eight week period beginning in the services with the longest cases. Long procedures were selected to give staff time to familiarize themselves with the flowsheet. By the end of the eight weeks, staff had no difficulty documenting for even the very short cases. The Hamilton General implementated the use of the flowsheet in all services over a two week period. This method was selected because of the longer average duration of the procedures in the Hamilton General Operating Rooms.

The implementation process was not without its difficulties for the disciplines affected by the change - nursing, anaesthesia and surgery. After much discussion, it became apparent that the choice of wording in some of the nursing diagnoses caused anxiety. As a result, a meeting was organized with representation from Administration, the Documentation Committee, Anaesthesia and Surgery to identify and resolve concerns. The hospital lawyer attended this meeting to provide guidance on issues of liability. The final wording on the flowsheet reflected the needs of nursing, and was sensitive to the medical-legal implication of documentation for all disciplines. This reinforced the need to communicate to all disciplines affected.

As anticipated, there was a period of adjustment that did contribute to delays in the room, apprehension, and insecurities with the documentation. However, through continual reinforcement of the nurses' right to document the nursing care, these issues were overcome.

Case Study

The following case study illustrates the flowsheet documentation process:

Jane Doe is a forty-five year old female scheduled for a laparoscopic cholecystectomy. Her right wrist is broken and in a cast. Jane does not have any other medical problems.

A week before surgery, Jane Doe visited the Preoperative Clinic. At that time, she expressed a fear of pain related to her surgery and the usual anxiety expressed by most patients regarding surgery and the unknown environment of a hospital. The Preoperative Clinic nurse initiated the Perioperative Flowsheet 1 (see Appendix 1 - Clinic Column) with the following goals to be achieved:

- prevent further injury to right wrist,
- assist Jane to understand the events of her surgical experience,
- provide Jane with support to work through her anxiety, and
- discuss pain management program.

The following nursing diagnoses were developed from the goals identified with the patient in the Preoperative Clinic:

- anxiety related to pain as evidenced by other - verbal statements,
- lack of knowledge related to sequence of events as evidenced by request for information, and
- potential for injury related to deficit as evidenced by fractured right wrist.

On the day of surgery Jane was admitted to the Preoperative Admission area. She was anxious about her surgery and concerned about further injury to her fractured wrist. The goals and nursing diagnoses identified in her original assessment were re-evaluated and updated as necessary (see Appendix 1 - Preop Column). After Jane was prepared in this area, she was transfered to Patient Receiving in the Operating Room. She arrived crying and accommpanied by a friend.

The Patient Reception and Operating Room nurses assessed the patient to determine if the nursing diagnoses and the goals were still active, needed revision, or had been attained. This documentation is on Perioperative Flowsheet 1 (see Appendix 1 - OR Reception Column & OR Column). Pertinent interventions were identified for each nursing diagnosis and required the nurse to initial those that were pertinent to the patient.

The patient walked into the Operating Room suite accompanied by the Operating Room nurse. On admission to the room, Jane stated that she was cold.

A surgical count was done according to hospital policy. A cautery pad was placed on Jane's left thigh.

The following goals were identified in the OR:

- maintain appropriate body temperature,
- count will be correct,
- cautery site will remain free of injury, and
- no further injury to fractured right wrist.

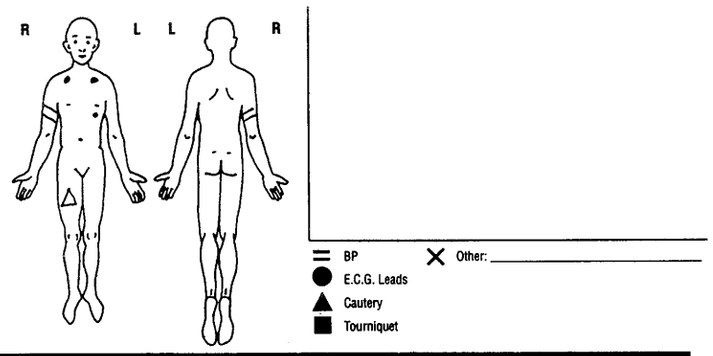
The nursing diagnosis for these goals are:

- altered body temperature related to perioperative events and environment, and
- potential for injury related to: positioning, length of surgery, cautery, and count items.

The intraoperative nurse continued with the nursing diagnosis potential for injury related to limita-

Appendix 2 - Perioperative Flowsheet #2

NURSING DIAGNOSIS	GOAL ATTAINMENT	EVALUATION			INTERVENTIONS · NURSES NOTES
A = ACTUAL P = POTENTIAL N/A = NOT APPLICABLE	N (NURSING) M (MUTUAL)	A = ATTAINED SA = STILL ACTIVE R = REVISED	STATUS	TIME / INITIAL	(NN) refers to Nurses' Notes NA = Not Applicable
3b. Potential for injury related to: (I) limitations in range of motion: ☑ R/WRIST fracture ☑ cast R/WRIST ☐ traction ☐ paralysis ☐ missing limb(s) ☐ other	M No physical injury as evidenced by: ☑ Pre-existing range of motion not compromized. ☐ Other	A		0900 JT	POSITIONING pre-op transfer to OR table: ☑ self ☐ assisted ☐ other post-op transfer from OR table: ☐ self ☐ assisted ☑ slider ☐ N/A ☐ other SURGICAL POSITION: ☐ prone ☑ supine ☐ lateral ☐ LT ☐ RT ☐ lithotomy ☐ frogleg ☐ other Intraoperative position changed to: SUPPORTS AND PADDING: ☐ stirrups ☐ bolsters ☐ beanbag ☐ sandbag ☐ frame ☐ table ☐ pillows ☐ rolls ☐ foams ☐ pads ☐ donut(s) ☐ other ulnar nerve protector ☑ RT ☑ LT SAFETY BELTS / RESTRAINTS: ☐ across thighs ☐ across abdomen ☐ across chest ☐ N/A Arms tucked: ☐ RT ☐ LT ☐ No Armboard: ☐ RT ☐ LT EYES PROTECTED: ☐ Yes ☐ No
(II) length of surgical intervention.	☑ Protected areas remained free of injury. ☐ Other	A		0900 JT	
(III) Use of equipment: ☑ Cautery	Cautery site: ☑ skin clear ☐ other	A		0900 JT	Type of Unit VALLEYLAB Serial # J ☑ Mono Cut 35 Coag 35 ☐ Bipolar Setting Grounding Pad Site Shaved ☐ Yes ☑ No
☐ Tourniquet	Skin Condition: ☐ as pre-application ☐ other				Type of Unit Serial # Applied By: ☐ RT ☐ LT Cuff size Pressure On / Off ; Pressure On / Off
☑ Count Items	☑ count correct	A		0900 JT	Count According to Policy ☑ Count Not Done ☐
☐ Laser	☐ Patient and environment remained free of health risk hazards and laser accidents.				Laser Protocol followed ☐
☐ X-Ray ☐ Image	☐ Maintained minimal exposure to patient.				X-ray Protocol Followed ☐
☐ Other					



NURSING DIAGNOSIS	GOAL ATTAINMENT	EVALUATION			INTERVENTIONS NURSES' NOTES
A = ACTUAL P = POTENTIAL N/A = NOT APPLICABLE	N (NURSING) M (MUTUAL)	A = ATTAINED SA = STILL ACTIVE R = REVISED	STATUS	TIME / INITIAL	(NN) refers to Nurses' Notes N/A = Not Applicable
4. Potential (actual) altered body temperature related to perioperative events and environment. As evidenced by: ☐ pallor ☐ shivering ☑ verbal statement ☐ other	M Appropriate patient body temperature maintained.		SA	0900 JT	☑ warm blanket ☑ warm solution(s) NACL 0.9% IRRIGATION ☐ Bair Hugger ☐ cold solution(s) Blanket: ☐ hypo ☐ environment temp. altered ☐ hyper ☐ head covered
5. Potential for infection related to surgical intervention.	N Aseptic technique maintained.		A	0900 JT	Skin condition pre-op: ☑ clear ☐ other Skin prep: ☐ shave ☐ clip ☐ scrub Prep solution: ☐ Savlon ☑ Proviodine ☐ Hibitane ☐ other Pacing Wires: ☐ yes ☐ N/A CATHETER Size & type: Inserted by: Drainage: DRAINS Size / Type Location Collecting Device 1 2 3 ☐ sutured ☐ pinned ☐ free ☐ stab wound ☐ incision PACKING / DRESSINGS ½" STERISTRIPS

Correction

to ORNAC's
Recommended Standard #8
"Scrub, Gown, Glove"
Section 8.13 should read:
If a glove becomes contaminated or sustains a pin hole, the glove shall be changed as soon as the situation permits **by one member of the sterile team regloving the other member.** If not possible, **by open glove method.**

Rationale:
Once the original gloves are donned, the gown cuffs are considered contaminated.

Vija Hay
Chairperson, ORNAC
Standards/Education Committee

tions in range of motion due to the fractured right wrist. (This documentation is on Perioperative Flowsheet II, see Appendix 2).

The Operating Room nurse acting as the patient's advocate continued to ensure that these goals were met in the interoperative phase. Any goals that were still active were communicated to the PAAR nurse.

Summary

The flowsheet was trialed and assessed by staff. Valuable input for several revisions was received and incorporated into each new version.

The current form is the result of trials and revisions of the original format developed three years ago. The process of developing this type of documentation was an enriching experience for all involved. This Perioperative Flowsheet now reflects the nursing care provided in the Operating Room.

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Seifert, P. & Grandusky, R. (1990). Nursing diagnoses: their use in developing care plans. AORN Journal, 51(4), 1008-1021, 1023-1026.

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Note:
The complete documentation is available on request. Please send a self-addressed enveloped (and 88¢ postage) to:
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OR Booking Policy:
Development and Implementation

By Margot Kontak-Forsyth, RN,BSc,BN,MEd & Anne E. Grant, RN, LL.B

Surgical bookings are integral to the optimal functioning of any operating room facility (OR).[1] Ideally, the goals and strategic planning of the organization should be reflected in surgical block scheduling. For example if an institution has identified that it intends to increase outpatient procedures or day surgery, it only follows that an appropriate amount of elective surgical time be allocated to any service or physicians who perform such procedures. Unfortunately this is not always recognized and often the process of booking OR lists is designated as merely a clerical function. In actual fact, bookings are the force that drives the OR. The authors will examine development and maintenance of a policy for this important area, and outline criteria which should be included in an optimal OR booking policy.

There are two general methods of allocating operating room time: block scheduling and open bookings.[2] Block scheduling utilizes a master schedule which defines the number and types of rooms available, the hours that rooms will be open and the service or surgeons who are allocated the operating time.[3]

1. Booking policies are utilized in many clinical areas such as endoscopy, cystoscopy, day surgery and out patient clinics. The criteria identified in this article would apply equally to other areas, but for ease of reading, the authors have chosen to refer solely to the operating room.
2. Breslawski, S. & Hamilton, D., Operating Room Scheduling, *AORN Journal.* (1991) 53(5),1229-1237.
3. Blake, J. T., *Strategic and Administrative Aspects of Advance Surgical Process Scheduling* (1994) Department of Industrial Engineering, University of Toronto (unpublished), at page 11.
4. Blake, supra at page 12.
5. Breslawski, supra.

While a master scheduling system has been observed to be potentially more efficient, this is dependent, on whether the scheduled block accurately reflects the actual patterns of usage and whether mechanisms are in place to release unreserved blocks in a timely manner.[4] For example, if a surgeon has been allocated a weekly block and over three months has demonstrated 70% utilization of this time, it would be appropriate to assess whether to decrease the length of the block. Under the open bookings system, also known as first come first served (FCFS), surgery is allocated to the first physician making the request. While FCFS systems are simple to implement and widely used, it has been observed that this system is associated with high levels of cancellations, low resource utilization, excessive overtime and friction between surgeons.[5]

Whatever type of surgical scheduling system is in use, an OR's bookings determine the surgical operational budget. In other words, the surgical schedule directly impacts staffing, hours of work, and utilization of supplies and equipment. As a key cost centre of any hospital, it is imperative that bookings be run smoothly and consistently. Further, the OR bookings significantly impact many other departments in the hospital including: Radiology, Haematology, Housekeeping, Pathology, and Biomedical Engineering to name but a few. Perhaps most significant is the impact of OR surgical block time on the utilization of that

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