

Naval School
of Health
Sciences

Research
Department
Bethesda, MD
20814-5033

Research
Report 2-87
April 1987



1

AD-A186 501

Delineating the Ambulatory Care Nursing Activities in the Navy Medical Department

**(Phase I of the Workload Management System
for Nursing Ambulatory Care Project)**

DTIC FILE COPY

**DTIC
ELECTE
OCT 09 1987**
S D
ckd

**CDR Carolyn S. Warren, NC, USN
LT David J. Styer, MSC, USN
LCDR Mabelle K. Sturm, NC, USNR-R**

DISTRIBUTION STATEMENT A

**Approved for public release
Distribution Unlimited**

87 10 1 299

REPORT DOCUMENTATION PAGE

1a. REPORT SECURITY CLASSIFICATION Unclassified			1b. RESTRICTIVE MARKINGS		
2a. SECURITY CLASSIFICATION AUTHORITY			3. DISTRIBUTION/AVAILABILITY OF REPORT		
2b. DECLASSIFICATION/DOWNGRADING SCHEDULE			Unlimited		
4. PERFORMING ORGANIZATION REPORT NUMBER(S) 2-87			5. MONITORING ORGANIZATION REPORT NUMBER(S)		
6a. NAME OF PERFORMING ORGANIZATION Naval School of Health Sciences		6b. OFFICE SYMBOL (if applicable)	7a. NAME OF MONITORING ORGANIZATION Health Sciences Education and Training Command		
6c. ADDRESS (City, State, and ZIP Code) Bethesda, MD 20814-5033			7b. ADDRESS (City, State, and ZIP Code) Naval Medical Command National Capital Region Bethesda, MD 20814-5022		
8a. NAME OF FUNDING/SPONSORING ORGANIZATION Health Sciences Education & Training Command		8b. OFFICE SYMBOL (if applicable)	9. PROCUREMENT INSTRUMENT IDENTIFICATION NUMBER		
8c. ADDRESS (City, State, and ZIP Code) Naval Medical Command National Capital Region Bethesda, MD 20814-5022			10. SOURCE OF FUNDING NUMBERS		
			PROGRAM ELEMENT NO.	PROJECT NO.	TASK NO.
					WORK UNIT ACCESSION NO.
11. TITLE (Include Security Classification) Delineating the Ambulatory Care Nursing Activities in the Navy Medical Department; Phase I of the Workload Management System for Nursing Ambulatory Care Project.					
12. PERSONAL AUTHOR(S) CDR Carolyn S. Warren, NC, USN; LT David Styer, MSC, USN; LCDR Mabelle K. Sturm, NC, USNR-R					
13a. TYPE OF REPORT preliminary		13b. TIME COVERED FROM Sept 86 to Mar 87		14. DATE OF REPORT (Year, Month, Day) April 1987	
15. PAGE COUNT					
16. SUPPLEMENTARY NOTATION					
17. COSATI CODES			18. SUBJECT TERMS (Continue on reverse if necessary and identify by block number)		
FIELD	GROUP	SUB-GROUP			
05	09		Personnel Management; Nursing; Medical Services; Medical Personnel; Ambulatory Care.		
19. ABSTRACT (Continue on reverse if necessary and identify by block number) See reverse side					
20. DISTRIBUTION/AVAILABILITY OF ABSTRACT ☒ UNCLASSIFIED/UNLIMITED ☐ SAME AS RPT. ☐ DTIC USERS			21. ABSTRACT SECURITY CLASSIFICATION Unclassified		
22a. NAME OF RESPONSIBLE INDIVIDUAL CDR Carolyn S. Warren, NC, USN			22b. TELEPHONE (Include Area Code) 295-1467		22c. OFFICE SYMBOL

The Ambulatory Care Nursing Activities research project is an extension of the nursing workload management study directed by the Navy Surgeon General in October 1979. The Workload Management System for Nursing (WMSN) is the patient classification and staffing methodology system currently used in the inpatient services of 36 Navy and 50 Army hospitals. The ultimate goal of the current research is to create an ambulatory patient classification and staffing methodology that translates varying patient workload into professional and paraprofessional nursing staff requirements. The report includes an overview of the three phases of the Ambulatory Care Project and results of Phase I: Delineating the Ambulatory Care Nursing Activities in the Navy Medical Department. In Phase I a questionnaire was developed after a literature review and interviews with a representative group of ambulatory care nursing experts. The survey was completed by 591 (67% of total) military and civilian registered nurses working in Navy outpatient and emergency departments. Survey respondents from 19 clinical areas identified the common direct and indirect care activities that were essential to their patient care mission. A majority of the study respondents perceived the need to increase the number of staff Hospital Corps personnel (59%) and clerical support personnel (65%) in their work group. Perceptions of the levels of care required by the patient populations in various clinical areas revealed significant differences in the percentages of patients in the five defined levels of care in the emergency room compared to the outpatient clinics. The survey delineated ambulatory care nursing activities that will be operationally defined and timed in the next phase of the study. The respondents identified the areas of greatest patient volume and nursing staff concentration to enable selection of field sites for future work measurement study of direct and indirect care. The survey indicated that professional nursing practice of nursing and Hospital Corps staff in Navy medical treatment facilities include all the responsibility areas defined in current literature in civilian nursing practice.



Accession For	
NTIS CRA&I	☒
DTIC TAB	☐
Unannounced	☐
Justification	
By	
Distribution/	
Availability Codes	
Dist	Avail and/or Special
A-1	

DELINEATING THE AMBULATORY CARE NURSING ACTIVITIES
IN THE NAVY MEDICAL DEPARTMENT

PHASE I OF THE WORKLOAD MANAGEMENT SYSTEM FOR NURSING
AMBULATORY CARE PROJECT

Research Report 2-87 April 1987

CDR Carolyn S. Warren, NC, USN

LT David J. Styer, MSC, USN

LCDR Mabelle K. Sturm, NC, USNR-R

Naval School of Health Sciences

Bethesda, MD 20814-5033

Research Report 2-87 was supported by the Naval Medical Research and Development Command, Bethesda, MD, under Work Unit 61152N-MR0001.101-8005 and by the Health Sciences Education and Training Command. The views expressed in this report are those of the authors. No endorsement by the Department of the Navy has been given or should be inferred.

Acknowledgement: Grateful appreciation is extended to the charge nurses of the emergency and outpatient departments of Naval Hospital, Bethesda, MD, and to the Nurse Corps specialty advisors for their helpful input; special thanks to CAPT Karen A. Rieder, NC, USN, former Director of the Research Department for conceptualizing and nurturing the project and to CLR James M. LaRocco, MSC, USN, Director, Research Department, and CAPT P. J. Elsass, NC, USN, Commanding Officer, Naval School of Health Sciences, for their guidance and support.

EXECUTIVE SUMMARY

STUDY: Delineating the Ambulatory Care Nursing Activities in the Navy Medical Department (Phase I of the Workload Management System for Nursing Ambulatory Care Project); Phase I (FY 86) was supported by the Naval Medical Research and Development Command, Department of the Navy, under Work Unit 61152N-MR0001.101-8005.

INVESTIGATORS: CDR Carolyn S. Warren, NC, USN; LT David J. Styer, MSC, USN; LCDR Mabelle K. Sturm, NC, USNR-R; Research Department, Naval School of Health Sciences, Bethesda, Maryland 20814-5033.

PURPOSE: The ambulatory care portion of the Workload Management System for Nursing (WMSN) will extend the nursing manpower model so that professional and paraprofessional nursing staff can be allocated within freestanding clinics and hospital emergency and outpatient departments based upon varying patient workload requirements.

POPULATION: The survey involved 591 (67% of total) civilian and military registered nurses (RN) working in the emergency and outpatient departments of most CONUS and OCONUS (98% of total) Navy medical treatment facilities.

METHOD: Current literature was reviewed and a questionnaire developed to describe ambulatory care nursing activities. Respondents completed a marksense form indicating their background, clinical work area, work group composition, and activities.

FINDINGS: Survey respondents from 19 clinical areas identified the common direct and indirect care activities that were essential to their patient care mission. A majority of the study respondents perceived the need to increase the number RN (46%) staff, Hospital Corps personnel (59%), and clerical support personnel (65%) in their work group. Descriptions of patient populations revealed a significant difference between the levels of intensity of nursing care found in the emergency department compared to the levels found in outpatient clinics.

CONCLUSION: The survey delineated ambulatory care nursing activities that will be operationally defined and timed in the next phase of the study. The respondents identified the areas of greatest patient volume and nursing staff concentration to enable selection of field sites for future work measurement studies in various clinical areas. The survey indicated the professional nursing practice of nursing support staff in Navy medical treatment facilities includes all the responsibility areas defined in current literature on civilian nursing practice.

DELINEATING THE AMBULATORY CARE NURSING ACTIVITIES IN THE NAVY MEDICAL DEPARTMENT

Ambulatory care services are in a dramatic growth phase due to increased awareness of the need for preventive health services, greater demand by patients, and the high costs of inpatient care. Stricter requirements by oversight agencies increase the indirect care nursing workload in areas such as planning and coordinating patient care services, quality assurance programs, and staff education and training. Medical specialists carry out sophisticated patient care procedures in outpatient clinics due to technological advances in medical equipment (fiberoptic, microscopic, and laser type instruments). These scientific developments increase direct care nursing workload by increasing the number and types of services available in the ambulatory care setting for greater numbers of patients. More nursing and Hospital Corps staff are needed to assist the physician, monitor the patients, and teach patients and their families the principles of home care. Navy hospital outpatient departments and free-standing medical clinics do not have a staffing system in place to document the requirements for nursing and Hospital Corps personnel to meet the workload in the ambulatory care environment.

The Ambulatory Care Nursing Activities research is an extension of the Workload Management System for Nursing (WMSN) project, a patient classification and staffing system operational in the inpatient areas of 50 Army and 36 Navy hospitals. The goal of the current research is to provide nursing administrators with an objective staffing system for use

in the emergency and outpatient departments. A complete WMSN will provide the Naval Medical Command with a nursing manpower model in which professional and paraprofessional nursing staff can be allocated according to varying nursing workload requirements by facility.

The objectives of the ambulatory care study are: (1) to identify ambulatory care nursing activities in the Navy Medical Department; (2) to objectively document the amount of time needed to carry out nursing activities for a specific patient or group of patients; and (3) to develop a patient classification instrument that will indicate those nursing activities critical to the determination of professional and paraprofessional nursing manpower requirements in the emergency and outpatient departments. By meeting the project objectives, Naval medical outpatient facilities will have a staffing system that will enable them to meet the Joint Commission on Accreditation of Hospitals (JCAH) standard requiring that staffing be commensurate with patient care needs and staff expertise (JCAH, 1985). With this information on nursing manhours required, administrators of Naval medical treatment facilities can allocate nursing and hospital corps personnel more equitably, thereby enhancing efficient health care delivery.

The Ambulatory Care Project includes three phases:

(1) Phase I (FY86) involved surveying 591 (67% of total) civilian and military registered nurses working in the emergency and outpatient departments of Navy medical facilities (see Appendix A). The results of the survey delineating the roles and activities of professional nurses in

ambulatory care services are described in this technical report.

(2) Phase II (FY86 & 87) involves conducting work measurement studies to objectively document the direct and indirect nursing activities required to provide patient care in the ambulatory care setting.

(3) Phase III (FY87) consists of developing the outpatient classification tools that will translate patient workload information into requirements for nursing care personnel.

The planned methodology of Phases II and III are discussed further in Appendix B.

An extensive review of the literature on ambulatory care nursing activities was accomplished in preparation for the development of a staffing methodology based on patients' nursing care requirements. Studies of the complexity and characteristics of ambulatory care nursing practice are the focus of increasing interest due to the increased demand for ambulatory health services.

Verran (1981) defined seven potential responsibility areas in ambulatory care nursing. These included responsibilities for the following: patient counseling, health care maintenance and preventive care, primary care, patient education, therapeutic care, and normative care. In addition to these direct care areas, nurses perform indirect care or non-client-centered activities, which were defined as "those nursing functions that do not involve contact with a specific client but are required for clinic maintenance and staff development" (Verran, 1985, p. 5). Verran established forty-one direct care categories and four indirect care categories under the seven potential responsibility areas

(see Appendix C). In her doctoral dissertation Verran (1982) used this taxonomy as the foundation for an Ambulatory Care Client Classification Instrument (ACCCI). Verran stated that the specific activities or indicators of care vary according to clinical setting but that broad ACCCI categories appear to be generalizable across a variety of ambulatory settings (Verran, 1986, p. 250). The ACCCI quantifies the complexity of nursing care in the ambulatory care setting by using the consensus of judgements of the nurses participating in the study (Verran, 1981). This is the only study that addressed task difficulty in the ambulatory care literature. However, Verran did not specify at what complexity point an RN should be responsible for a nursing care task as opposed to a non-RN (paraprofessional). Applying Verran's taxonomy, Fisher, Heller, Hastings, and Tighe (1984) concluded that the pattern and scope of nursing practice in different highly specialized outpatient clinics was similar. Corroborating Verran's findings, the study found the registered nurse role focused on: health maintenance, health planning, and counseling. This information will be helpful in the development of a staffing system that provides an appropriate skill mix of professional and paraprofessional nursing staff.

Additional research compared the complexity of nursing care roles and activities in the inpatient versus the ambulatory care setting. O'Neal (1978) identified five characteristics that make the ambulatory patient and nursing care providers unique from the inpatient setting: (1) the stage of illness, (2) the patient's perception of illness, (3) control of therapy or treatment plan, (4) access to care, and (5) the

role of the nursing care providers. O'Neal points out that the ambulatory patient is more independent: the patient assumes a more active role in health care processes and chooses whether or not to comply with an established care plan. The provider's assessment of the patient is brief and intermittent which increases dependence on the patient's history for data. She states, "The nursing role within the ambulatory care setting is more variable, ranging from limited interaction with the patient (assisting with patient flow and performing administrative procedures), to extended involvement with patients in health maintenance and education." (O'Neal, 1978, p. 16) Ingersoll discussed one ambulatory care facility's successful establishment of primary nursing practice in which one nurse is responsible for every aspect of a patient's individualized nursing care plan (Ingersoll, 1984, p. 37). Brosnan and Johnston (1980) noted that specialized assessments and procedures have become indispensable services provided by nurses for chronically ill patients.

Other studies record strides made in nursing practice in the areas of patient teaching, health care maintenance, psychosocial support, and nursing documentation (Hooks, Dewitz-Arnold, and Westbrook, 1980; Marszalek, 1980, 1982). These activities are evident in nurse-run clinics to which physicians refer patients for management of specific nursing problems (Kepnes, 1984, p. 30). Although there is an increasing demand for nursing specialists in ambulatory care, nursing personnel still have traditional responsibilities such as: assisting physicians with procedures, setting up exam rooms, ensuring efficient patient flow, and coordinating followup.

Defining the activities of general duty registered nurses and paraprofessionals under their supervision is essential to the WMSN staffing system based upon patient care requirements, and is a major focus of the current study. The WMSN is a staffing system for nursing (non-practitioner) and Hospital Corps personnel, therefore this report focuses on these activities of registered nurses in staff and charge nurse positions.

Method

Procedure

A review of current literature, ambulatory nursing procedure manuals, and a sample of 300 emergency room treatment records provided a platform on which to identify ambulatory care nursing activities for incorporation in a Navy-wide survey of RNs. The questionnaire was sent to the Navy Nurse Corps Specialty Advisors for preliminary review and comment. After approval by the Office of the Chief of Naval Operations (OP-01B7C), the survey was mailed to 880 military and civilian RNs working in ambulatory care services of CONUS and larger overseas facilities of the Navy Medical Department.

Respondents were asked to complete the questionnaire on a machine scored answer sheet, make additional comments they felt necessary, and return the questionnaire by mail. The response rate was 67%, with 591 of the 880 questionnaires returned. The answer sheets were machine read to

a computer file. Answers that were entered directly on the questionnaire were manually added to the computer file. Cross tabulation and statistical analysis of the data were accomplished using SAS (Statistical Analysis System, SAS Institute Inc., Box 8000, Cary, NC 27511). Not all respondents completed every question of the instrument and, therefore, the total "n" for each analysis often varied.

Instrument

The survey (Appendix A) included questions on the respondents' experience/skill level, education, paygrade, clinical area, type of facility, and workload. The respondents were asked to describe the percent of direct nursing care required by their patient population, and to estimate the frequency of occurrence of direct and indirect care activities. Information on the actual and recommended number of work group personnel was analyzed. Although other questions (such as schedule patterns, chain of command, perception of change in nursing practice) were included in the questionnaire, these data added little in further characterizing the respondent population, and are not presented in this technical report.

Respondents

The distribution of the respondents by their nursing position (Question 1, Appendix A) is displayed in Table 1. Sixty-eight percent (n=382) of the respondents were staff/charge nurses. The remaining 32% (n = 182) were composed of the following: 9% were nurse practitioners,

13% were ambulatory care coordinators, and 2% held "other" positions. Those in the "other" category included 4 midwives, 3 clinical specialists (neuropsychiatry, oncology), 2 Branch Clinic Directors, 1 ER/ICU Department Head, 1 infection control nurse, 1 research nurse, 1 enterostomal therapist, and 1 Certified Registered Nurse Anesthetist. The existence of an ambulatory care patient classification staffing system would impact directly on 68% of the respondents, and an additional 13% would be directly involved with the reporting mechanisms.

Table 1

Distribution of Respondents by Position

Position	N	Percent
Staff/Charge Nurse	382	68%
Ambulatory Care Coordinator	75	13%
Nurse Practitioner	49	9%
Occupational Health Specialists	26	5%
QA/RM Coordinators	12	2%
Education/Training Coordinators	6	1%
Other	<u>14</u>	<u>2%</u>
Total	564	100

The majority of all respondents working in ambulatory care in the Navy were experienced nurses (Question 6, Appendix A). Sixty-eight percent ($n = 535$) of the staff/charge nurses working in ambulatory care reported ten or more years of experience in nursing. The self-reported years of nursing experience are summarized in Table 2 and reveal an average of 12 years of nursing experience per nurse.

Table 2
Nursing Experience by Position Held

Position	Years of Experience					Total
	1	1 - 5	5 - 10	10 - 15	15	
Staff/Charge	0	29	92	120	138	379
Practitioner	0	0	6	15	27	48
Coordinator	1	0	7	26	40	74
Other	0	0	5	18	41	64
Total	1	29	110	179	246	565
Percent	0.1%	5%	19%	31%	44%	100%

Table 3 displays the distribution of respondents' nursing experience in the ambulatory care setting (Question 7, Appendix A). From this table approximately 80% ($n = 446$) of the respondents had 5 or less years of

experience in ambulatory care. Therefore, a majority of the nurses in the sample were experienced inpatient nurses prior to working in the ambulatory setting.

Table 3

Ambulatory Care Nursing Experience by Position Held

Position	Years of Experience					Total
	1	1 - 5	5 - 10	10 - 15	15	
Staff/Charge	151	157	33	22	18	381
Practitioner	6	16	17	8	1	48
Coordinator	29	41	2	1	0	73
Other	16	30	9	5	4	64
Total	202	244	61	36	23	566
Percent	36%	43%	11%	6%	4%	100%

The respondents' distribution by paygrade (Question 4, Appendix A) is displayed in Table 4. Of the 541 respondents, 27.5% (n = 149) were civilian and 72.5% (n = 392) were Nurse Corps officers. Within the staff/charge nurse group, 115 (31%) of the respondents were civil service employees and 252 (69%) were Nurse Corps officers. The majority of civilian nurses were GS9, 81% of the staff/charge nurse group and 78% of

the total civilian group. The majority of the military nurses were 03/4, 83% of the staff/charge nurse group and 77% of the total military group.

Table 4

Paygrade by Position Held

Paygrade	Staff/Charge	NP	Coordinator	Other	Total	Percent
GS 7 ^a	2	--	--	--	2	.4
GS 8 ^b	0	--	1	1	12	2.2
GS 9	93	2	2	19	116	21.4
GS 10	--	--	--	4	4	.7
GS 11	9	2	--	--	11	2
GS 12	1	2	--	1	4	.7
O 1-2	35	2	1	1	39	7.2
O 3-4	210	21	47	23	301	55.6
O 5	7	9	21	11	48	8.9
O 6	--	2	1	1	4	.7
Total	367	40	73	61	541	99.8

Note: NP = Nurse Practitioner.

^a GS7 includes 5 PG-12 rating (Phillipines)

^b GS8 includes 3 PG-13 rating (Phillipines)

Table 5 summarizes the educational level of the respondents. A majority of the respondents had at least a baccalaureate degree (55%) with an additional 8% reporting a Masters degree. Of those respondents holding other than nursing degrees: 9 held Nurse Practitioner Certificates, 7 held Associate of Art degrees, 2 held Masters in Occupational Health, and 38 held a Masters degree in a field such as education, counseling, human resource management, health services management or public health. Seven respondents indicated they were working on advanced degrees, but did not provide enough information to allow categorization. Thirty-one percent of the staff/charge nurse group had Diplomas of Nursing 56% had Baccalaureate in Nursing, and 4% had a Masters of Science in Nursing.

Table 5
Educational Level by Position Held

Position	LEVEL					Total
	Diploma	BS	BSN	MSN	Other	
Staff/Charge	116	11	212	16	23	378
Practitioner	5	4	17	9	13	48
Coordinator	7	3	36	13	15	74
Other	19	5	20	7	12	63
Total	147	23	285	45	63	563
Percent	26.1%	4.1%	50.6%	8.0%	11.2%	100%

Summary. The respondents represented 67% of the total population of RNs working in ambulatory care services with 68% of the group in the Staff/Charge Nurse role. Seventy-five percent of the total group reported 10 or more years of nursing experience; 80% reported 5 or less years in ambulatory care nursing. Almost 78% (116 of 149) of the civilian nurses were GS9 in grade and 77% (301 of 392) of the military nurses were 03/4 in grade. Seventy-one percent of the respondents reported a baccalaureate or higher degree (n = 400).

Results

The nursing care personnel targeted by the patient classification system are general duty RNs and the paraprofessional support staff. Therefore, this paper focuses on the general duty RNs rather than specialists. The staff and charge nurses' clinical work areas, workload, workgroup skill mix and nursing activities are discussed below.

When asked to identify their clinical work area (Question 2, Appendix A), 320 respondents were distributed in the following manner: 140 (39%) respondents worked in the Emergency Department; 61 (17%) worked in Primary Care Clinics; 3 (less than 1%) were supervisors with outpatient care responsibilities; 88 (25%) worked in Medical Specialty Clinics, and 30 (9%) worked in Surgical Specialty Clinics (Table 6). Thirty-two respondents identified more than one area of specialty and were not included in Table 6.

Table 6
Specialty Distribution

Alcohol/Drug Rehabilitation	1
Allergy/Immunology	7
Endocrinology	1
Family Practice	10
Gastroenterology	1
Hematology-Oncology	1
Internal Medicine	10
Nephrology	1
Occ. Health/Preventive Medicine	11
Pediatric	35
Pulmonary Disease	1
Rheumatology	1
Other Medical	<u>8</u>
Medical Sub Total	88
Dental (Oral Surgery)	3
Ear-Nose-Throat	2
General Surgery	3
Obstetric-Gynecology	18
Plastic Surgery	1
Urology	<u>1</u>
Surgical Sub Total	30

Perceptions of Direct Care. The respondents' reported amount of direct care time (including clinical supervision, direct intervention and teaching patients/families) was analyzed with regard to (1) size of facility, (2) general type of clinical work (invasive clinics, non-invasive clinics, and emergency department), and (3) patient population in a 5 level system (minimal, moderate, complex, extensive, critical).

The respondents were asked to estimate the percentage of time that they spent in direct care (Question 13, 14, & 15, Appendix A). Their responses (N=375) were totaled and a One-way ANOVA was performed to determine if there were significant differences in the proportion of estimated time spent in direct care at each of five facility types (Table 7). No significant differences in the percent of time reported in direct patient care were found. For all respondents, the percentage of time spent in direct care averaged 55.26%.

Table 7

Percent of Time Spent by Staff/Charge Nurses in Direct Nursing Care by Facility Type

Facility Type	N	Mean Percent of Time
Teaching Hospital	105	60.45
Family Practice Hospital	65	57.25
Medium - Size Hospital	75	56.95
Small Hospital	27	51.89
Free Standing Clinic	<u>103</u>	49.60
Total	375	

Additionally, the percent of direct nursing care time-per-day was compared among three types of clinical work areas of ambulatory nursing care: Invasive, Non-Invasive and Emergency. The Invasive work area consisted of all clinics listed as Surgical Specialty and Gastroenterology, Nephrology, and Pulmonary clinics from the Medical specialty clinics (Table 6). The Non-Invasive work area was comprised of the remaining medical clinics in Table 6. Those respondents listing the Emergency Department as their clinical work area were classified as Emergency. The average percent of direct care reported for each area was: 51.6% for Invasive, 49.8% for Non-Invasive, and 63.6% for Emergency. Though an ANOVA determined that a significant difference existed between

the three groups ($N = 36$; $F = 5.59$, $DF = 2313$; $p < .0001$), post hoc analysis (Scheffé $p < .05$) failed to identify specific differences (i.e., between any pair of groups) in percent of time spent in direct care. (Scheffé's test was selected a priori for post hoc analysis because of its stringent criteria for significance). The work measurement studies in the next phase of the project will determine the accuracy of nurses' perceptions of their time in direct care. This is an issue in the reliability of numerous studies whose foundation lies in self-report or estimated timings.

The clinical environment was differentiated into two categories: (1) emergency and (2) non-emergency (including Invasive and Non-Invasive clinics as previously referred), to determine if a difference existed in the level of direct nursing care required by patients. As one would expect, those nurses working in the emergency environment reported significantly more patients requiring a greater level of direct care than did non-emergency ambulatory care nurses. The data are presented in Table 8.

Levels of Nursing Care Intensity. Staff and charge nurses were asked to distribute their patient population based on the level of direct nursing care required (Question 12, Appendix A). Five levels of direct nursing care were provided for the respondents to assign their patient population by percentage. These levels were estimates of the relative intensity of nursing time each patient required. The levels were defined as follows: Minimal - nursing care of less than 30 min.; Moderate - nursing care of 30 to 59 min.; Complex - nursing care of 60

to 120 min.: Extensive - nursing care of 121 to 180 min.: Critical - nursing care over 180 min.

Table 8

Mean Percent of Intensity of Direct Care Required by Ambulatory Care Patients

Level of Direct Care	Emergency	Non-Emergency
Minimal *	46%	75%
Moderate *	29%	17%
Complex *	14%	5%
Extensive*	7%	2%
Critical *	4%	1%
Total	100%	100%

(*n = 268, t-test, two-tailed, 266 df, $p < .001$)

Frequency of Direct and Indirect Care Activities. The questionnaire provided a list (Section A, item 44-96 and Section B, items 97-192) of nursing activities that occur in ambulatory care clinics and emergency department settings. Staff/charge nurses were asked to indicate the frequency with which activities were performed. The most common direct and indirect care activities (evaluated by percentage of respondents indicating daily or weekly performance) are presented in Tables 9 and 10,

respectively. The complete ranking of all activities for direct and indirect nursing care are found in Appendix D and Appendix E. This information was the foundation for the identification of the common ambulatory- tory care nursing activities which were then operationally defined and timed in later phases of this research project.

Table 9

Top Ten Direct Care Activities Reported Daily/Weekly in Frequency by Staff/Charge Nurses

Type of Activity	Percent of Respondents
Patient Care Rounds	95
Vital signs	91
Log-in patient	90
Patient triage	89
Patient escort	87
Assessment of patient history (intake interview)	87
Inform patient/family of command/dept. policy	85
Administer injections	79
Respond to patient complaint	79
Patient instruction	70

Table 10

Top Ten Indirect Care Activities Reported Daily/Weekly in Frequency by Staff/Charge Nurses

Type of Activity	Percent of Respondents
Phone & Messages	95
Prepare X-ray/lab chits	86
Supervise	82
Inventory/order drugs/supplies	76
Arrange patient referrals	76
Screen x-ray/lab chits	73
Odd jobs	72
Patient records filing	72
Retrieve health records	69
Transport specimens	69

Workload. The workload reported by staff/charge nurses (Question 10, Appendix A) yielded a wide range. Sixty-two percent of the staff/charge nurses reported between 1000-3000 patients/month (see Table 11). The average daily workload ranged from 60 to 100 patients.

Table 11

Staff/Charge Nurse Patient Workload

Patient Load (Visits/Month)	N	Percent
Under 500	48	13
500 - 999	61	16
1000 - 1999	143	39
2000 - 2999	85	23
3000 - 3999	12	3
4000 - 4999	5	1
5000 - 5999	14	4
Over 6000	3	1
Total	368	100

Work Group Skill Mix. Respondents reported the type and number of personnel in their work group in Table 12 (Question 19-34, Appendix A). The most common work group reported was composed of 6 or more physicians, 6 or more Hospital Corps personnel, and 1-2 RNs.

Table 12

Percent of Staff/Charge Nurses Reporting the Type and Number of Personnel
in their Work Group

Type of Staff Personnel	Number of Personnel				
	None	1-2	3-4	5-6	>6
Civilian/Military MD	18.4	23.3	12.3	12.3	24.3
Physician Assistant	64.4	25.3	7.1	1.1	2.1
Nurse Practitioner	82.9	14.0	2.6	0.5	0
General Duty RN	29.0	45.7	6.6	5.1	13.6
Other Staff RN	87.2	11.5	0.5	0.5	0.5
Licensed Voc/Pract. Nurse	73.5	21.2	2.6	1.1	1.6
General Duty Corpsman	14.9	15.5	19.7	14.9	35.0
Corpsman (Technician)	68.5	17.6	6.1	2.2	5.6
(n = 374)					

Staff and Charge nurse respondents were asked to indicate the type of staffing numbers they would like to change in their working environment (Questions 35-42, Appendix A). They were to assume that the number of physicians, physician assistants, and nurse practitioners would remain the same, as would the patient workload. Table 13 displays the responses provided for each type of personnel listed. From this table it can be

seen that the majority of staff and charge nurses are relatively satisfied with their current staffing levels of practical/vocational nurses, nursing aides and technicians. The data indicate the respondents recommend an increase the number of RNs, clerks, and administrative support: 37.4% desired 1-2 more RNs, 58.5% desired 1-2 more clerks, and 31.8% desired 1-2 more administrative support personnel (see Table 13).

Table 13

Desired Personnel Change by Type of Personnel

Type of Personnel	Increase			Decrease	
	No Change	1-2	>2	1-2	>2
RN Personnel	52.8	37.4	9.0	0.8	--
Gen. Duty Corpsman (NEC 0000)	38.2	33.9	24.7	1.6	1.6
Tech./Specialist Corpsman	69.0	19.8	9.0	1.5	0.3
Lic. Voc./Pract. Nurses	85.5	11.9	2.1	0.5	--
Nursing Assistants	92.2	5.3	1.1	0.8	--
Clerical Support	34.1	58.5	6.8	0.6	--
Admin./Mgt Support	63.9	31.8	3.2	0.3	--

Discussion

The objective of the first phase of the ambulatory care project, delineation of ambulatory care nursing activities, was accomplished by answering the following questions:

- 1) What are the commonly occurring nursing activities in the ER and outpatient clinic settings of Naval medical treatment facilities?
- 2) Do nurses report responsibilities other than direct and indirect patient care activities?
- 3) Based on the perceptions of respondents, what categories of activities systematically incorporate the activities found in ambulatory care nursing practice?

Ambulatory Care Nursing Activities. Of the 98 direct care activities tested in the survey, only 22 were selected by 50% or more of the respondents as occurring at least weekly (see Appendix D). Of the 53 indirect care activities listed in the survey, 20 were selected by 50% or more of the respondents as occurring at least weekly (see Appendix E).

The common activities identified in this survey were analyzed in relation to the taxonomy of activities reported by Verran (1981) (see Appendix C). Verran delineated 41 direct care activities in the following six categories: patient counseling, health care maintenance, primary care, patient education, therapeutic care, and normative care. In addition to these six, Verran defined one non-client centered (or "indirect care") category composed of four activities: clinic maintenance, training, educational materials, and updating. Nineteen of

the 22 direct care (86%) and 37 of the 52 (77%) indirect care activities identified by this present survey matched the Verran taxonomy.

The three of the 22 direct care activities not included were: (1) logging in patients; (2) making appointments for patients; and (3) screening lab/tissue/X-ray reports (see Table 14). The absence of these activities in the Verran taxonomy could be an omission in the taxonomy, or evidence that the respondents are carrying out procedures not normally considered a part of nursing practice. An explanation of the latter finding could be that (1) clerical duties do not warrant a full-time clerk position (2) the complexity of appointing patient in the military health care system require expert triage or (3) respondents were occupied in non-nursing functions because of non-existent or inadequate clerical support. The rationale for RNs screening lab/tissue/ X-ray reports could be that physicians were unwilling or unable on a timely basis to read the reports. Nurses in Verran's hospital-based ambulatory care study may have clerical support staff to log in patients and make appointments. The civilian physicians may review all their histology, laboratory, and X-ray reports. The issue is raised as to whether RNs are carrying out clerical functions and physician duties in addition to their nursing workload, or instead of their nursing functions.

Table 14

Frequency of Selected Direct Care Activities of Staff/Charge Nurses.

	<u>ER</u>	<u>Selected Clinics*</u>	<u>Overall (ER + all Clinics)</u>
Log-in	95%	81%	90%
Make appts	50%	64%	64%
Screen reports	84%	65%	73%

*Primary Care, Peds, OB-Gyn, Allergy/Imm., Oc Health, Family Practice

All of the indirect care activities identified by Verran were commonly reported by the respondents. Of the sixteen indirect care activities identified in this survey not defined within the Verran taxonomy, nine activities were carried out at least monthly by over 50% of the nurses working in outpatient clinics, and 11 of the activities by over 50% of the nurses working in the emergency departments of Naval medical treatment facilities (see Table 15). Activities reported by a combined average of over 50% of the respondents but not reflected in the Verran non-client centered activities included (1) managerial functions (scheduling, coordination, communication, committees, personnel management), (2) chemical sterilizing, and (3) housekeeping. The occupation of nurses in the military health care setting in such activities clearly reflects the role of RNs in management of ambulatory care areas. The function of chemical sterilizing reflects the involvement of RNs in preparation of technical equipment. The function

of RNs in housekeeping activities reflects (1) inadequate or nonexistent cleaning staff or (2) activities carried out during nursing procedures for safety/comfort reasons. Of the activities not found in Verran's taxonomy, the majority of the functions were management related or clerical administration related. Respondents commented in several instances on the need for more staff support in these areas.

Categories of Care. The information on direct care activities from this report was analyzed and categorized in ten major areas:

- | | |
|----------------------------------|---------------------------|
| (1) Log-In/Out | (6) Instruction/Teaching |
| (2) Weights/Measures | (7) Diagnostic Tests |
| (3) Assessment | (8) Medication/IVs |
| (4) Transport | (9) Emergency Procedures |
| (5) General Procedures/Treatment | (10) Specialty Procedures |

The various activities are listed by category in Appendix G, and in the next phase of the project were operationally defined and timing using a laptop computer.

Table 15

Selected Indirect Care Activities Reported by Staff/Charge Nurses.

Indirect Care Activities	Avg	ER	Selected Clinics*	Selected Clinics Range
92 Coordinate dept. nsg functions	87%	96%	77%	66-86%
91 Meet with team on pt care prob.	86%	86%	86%	80-92%
59 Performance evaluations	85%	96%	74%	63-81%
71 Housekeeping	78%	84%	72%	66-80%
61 Nursing service committee	77%	83%	71%	37-86%
78 Change of shift communication	67%	97%	36%	10-48%
48 Morbidity statistics	66%	61%	70%	54-90%
62 Command committee	64%	69%	58%	30-73%
90 Chemical sterilizing	61%	67%	54%	38-61%
76 Monitor work hours	59%	60%	58%	46-68%
77 Schedule personnel	44%	57%	30%	10-45%
57 Plan dept budget	37%	28%	46%	25-54%
60 Write/update civ. position descrip	36%	29%	42%	30-60%
58 Review dept budget	35%	32%	37%	29-47%
54 Interview applicant for position	21%	18%	24%	10-40%
89 Sterilizing autoclave	12%	11%	13%	2-30%

Note. *Clinics included Primary Care, Peds, OB-Gyn, Allergy/Imm., Oc. Health, and Family Practice.

Summary

The 591 respondents represented 67% of the population of RNs working in ambulatory care in 98% of the shore-based Naval medical treatment facilities. RNs from all types of facilities were represented, although RNs from family practice hospitals were under represented compared to RNs from other facility types. Respondents represented RNs in civil service paygrades GS 7 to GS 12 and military paygrades O-1 to O-6, and nineteen clinical areas. The survey revealed RNs practicing in ambulatory care have experience in both inpatient and outpatient areas with an average of 12 years of experience. Although the majority of the respondents were educated at or higher than the baccalaureate level, a closer look revealed 58% of the civilian RNs were diploma nurses, compared with only 12% of the military nurses.

Respondents from all categories of facilities estimated their direct patient care time averaged 55% (ranging from 50% in free-standing clinics to 60% in teaching hospitals).

Staff and charge nurses reported only 22 of 98 direct care and 20 of 52 indirect care activities occurred daily or weekly.

Responses regarding workload revealed an average daily patient load of 60-100, and indicated the need to increased staff at the RN, clerical, and administrative support positions. Workgroup skill mix was reported as follows: 23% worked with over 6 physicians; and 25.3% reported working with 1-2 P.A.s; 14% reported working with 1-2 N.P.s; 75% of the RNs worked by themselves or with one other RN; 21.2% worked with 1-2

LPNs; 70% worked with more than 2 general duty corps personnel; and 17.6% worked with 1-2 Hospital Corps personnel trained in a technical specialty.

The respondents identified only three activities (logging in patients, making appointments, and reviewing lab/x-ray/tissue reports) that were not reflected in Verran's taxonomy of ambulatory direct care nursing practice. Without exception, the direct and indirect care activities identified in the literature were germane to the practice of military and civilian registered nurses in the Navy.

Conclusion. This report documents the patient care and department/division management common in the role of the RN in the ambulatory care setting. The activities of general duty RNs are very similar for staff/charge nurses in both clinics and emergency departments. Patient work loads indicate that any staffing methodology based on patient classification should be automated if instituted on a regular basis. From the comments, nurses in specialty roles (nurse practitioners, therapists, educators, quality assurance positions, clinical specialists and occupational health) perform highly specialized nursing care procedures and should be treated separately in workload management/staffing studies.

APPENDIX A

RESEARCH DEPARTMENT
NAVAL SCHOOL OF HEALTH SCIENCES
BETHESDA, MARYLAND 20814-5033

AMBULATORY CARE NURSING PERSONNEL SURVEY

I. PURPOSE

The purpose of this Fiscal Year 1986 research project, funded by the Naval Medical Research and Development Command, is to increase current knowledge of the roles and activities of military and civilian Registered Nurses working in staff, supervisory, practitioner, or specialist positions in Navy outpatient clinics and emergency departments.

Your participation in this survey is voluntary but is critical to the validity and reliability of the results. The study is Navy-wide and has an OPNAV Report Control Symbol (RCS# 6010-4(OT)) indicating approval for the distribution. Mark sense forms are used to enable the investigator to enter the volume of data into a computer for analysis. Please do not enter your name on the Scan-Tron form as information will be reported without identifying individuals or commands.

As soon as possible, please return the questionnaire and Scan-Tron form (coded with the same number) in the addressed envelope provided. Your participation is appreciated and will contribute to the objective documentation necessary to extend the Workload Management System for Nursing (WMSN) into the ambulatory care area. The completed report will be used by the Naval Medical Command, Navy Department, in the analysis of present and future workload in Navy facilities. A copy of the summary report will be forwarded to each facility with participating personnel.

If you have any questions, please write to me at the Naval School of Health Sciences (Code 42), Bethesda, Maryland 20814-5033, or call Autovon 295-1467.



CAROLYN S. WARREN
Commander, Nurse Corps
United States Navy
Principal Investigator

Please Record the Time You
Began in Military Hours: _____

850
code number

DIRECTIONS: (1) BECAUSE ANSWERS MAY BE ENTERED ON THE SCAN-TRON FORM AND ON THE QUESTIONNAIRE, A CODE NUMBER IS ENTERED ON THE QUESTIONNAIRE AND ON THE SCAN-TRON FORM. DO NOT ENTER YOUR NAME. (2) SELECT THE ANSWER THAT BEST DESCRIBES YOUR RESPONSE. (3) THE SCAN-TRON CANNOT READ MARKS THAT ARE TOO LIGHT, X'S, CIRCLES, CHECKS, OR ANY MARK THAT DOES NOT FILL THE BOX. PLEASE USE A #2 PENCIL, AND FILL THE BOX WITH A DARK MARK. COMPLETELY ERASE ANY MARK OTHER THAN THE BOX OF THE ANSWER THAT YOU SELECT.

1. My Present position is:

- a. Staff Nurse
- b. Head Nurse/Charge Nurse
- c. Nurse Practitioner
- d. Ambulatory Care Coordinator
- e. Other _____

(please specify)

2. My clinical work area is: (enter the appropriate selection (a) through (e) on the Scan-Tron form and, if (c), (d) or (e), circle the appropriate clinical areas from the list below):

- a. Emergency Department
- b. Primary Care Clinic
- c. Supervisory (without patient care responsibilities)
- d. Medical Specialty Clinic (please circle)

Alcohol/Drug Rehabilitation
Allergy/Immunology
Cardiovascular Disease
Dermatology
Endocrinology
Family Practice
Gastroenterology
Hematology-Oncology
Infectious Disease

Internal Medicine
Nephrology
Neurology
Occupational Health/Preventive Medicine
Pediatrics
Pulmonary Disease
Psychiatric
Rheumatology
Other: _____

e. Surgical Specialty Clinic (please circle)

Ambulatory Surgical Unit
Cardiothoracic Surgery
Dental (oral surgery)
Ear-Nose-Throat
General Surgery
Neurosurgery

Obstetric-Gynecology
Ophthalmology
Orthopedic
Plastic Surgery
Urology
Other: _____

code number

3. Length of time in my present position is:

- a. Less than 1 year
- b. At least 1 year but less than 5 years
- c. At least 5 years but less than 10 years
- d. At least 10 years but less than 15 years
- e. 15 years or more

4. My present rank/grade is:

- a. 0-1 to 0-2
- b. 0-3 to 0-4
- c. GS-9
- d. GS-11
- e. Other: _____

(please specify)

5. My highest educational level is:

- a. Diploma in Nursing
- b. Baccalaureate other than in Nursing
- c. Baccalaureate in Nursing
- d. Masters in Nursing
- e. Other: _____

(please specify)

6. My years of experience in nursing are:

- a. Less than 1 year
- b. At least 1 year but less than 5 years
- c. At least 5 years but less than 10 years
- d. At least 10 years but less than 15 years
- e. 15 years or more

7. My years of experience in ambulatory care nursing are:

- a. Less than 1 year
- b. At least 1 year but less than 5 years
- c. At least 5 years but less than 10 years
- d. At least 10 years but less than 15 years
- e. 15 years or more

650

code number

8. My position is located in a:

- a. Teaching Hospital
 - b. Family Practice Hospital
 - c. Medium-Size Hospital (over 65 inpatient beds)
 - d. Small Hospital (less than 65 inpatient beds)
 - e. Free-Standing Clinic
- (Mark Scan-Tron Form and circle appropriate selection listed below)

Infirmery (outpatient facility with overnight accommodations of
limited duration for ambulatory, non-critically ill)

Medical Clinic

Branch Clinic

Branch Clinic Annex

9. My routine schedule pattern is:

- a. 8 hour shift: day-time, permanent
- b. 8 hour shift: rotation
- c. 12 hour shift: permanent
- d. 12 hour shift: rotation
- e. Other: _____

(please specify)

10. The workload in my area of responsibility is:

- a. Less than 500 visits per month
- b. 500 to 999 visits per month
- c. 1000 to 1999 visits per month
- d. 2000 to 2999 visits per month
- e. Other: _____

(please specify)

11. My chain of command is:

- a. Physician Supervisor and Nursing Service Supervisor
- b. Physician Supervisor only
- c. Nursing Service Supervisor only
- d. Director of Nursing
- e. Other: _____

(please specify)

code number

12. If you assessed your patient population during each patient's visit according to their requirements for direct nursing care, what approximate percentage of patients would fall into the 5 categories described below. The total of the percentages entered should approximate 100%, and be entered on the questionnaire below. Use the following choices for the Scan-Tron entry:

- (a) Choices entered on questionnaire
- (b) Does not apply
- (c) Do not know

- a. _____ Level I: Minimal direct nursing care or less than 30 min
- b. _____ Level II: Moderate direct nursing care or 30 to 59 min
- c. _____ Level III: Complex direct nursing care or 60 to 120 min
- d. _____ Level IV: Extensive direct nursing care or 121 to 180 min
- e. _____ Level V: Critical direct nursing care or over 180 min

*Definition: Direct Nursing Care is the observable patient care activities given by (RN and non-RN) nursing personnel in the presence of the patient. Examples include vital signs, monitoring, treatments or procedures, respiratory therapy, IV therapy, medication administration, teaching, emotional support, interview, or physical examination.

ESTIMATE THE PERCENT OF THE NORMAL WORKDAY YOU PRESENTLY SPEND IN THE ACTIVITIES LISTED IN QUESTIONS NUMBER 13 THROUGH 18 AND RECORD ON THIS SHEET IN THE BLANK SPACES. (YOUR ESTIMATE MAY TOTAL 100% OR LESS). THEN, INDICATE HOW YOU THINK THAT TIME SHOULD BE REDISTRIBUTED USING THE FOLLOWING CRITERIA AND ENTER ON THE SCAN-TRON FORM. FOR EXAMPLE, IF YOU THINK THERE SHOULD BE NO CHANGE IN THE PERCENT OF TIME YOU SPEND SUPERVISING OR ORGANIZING PATIENT CARE (#13), MARK (a) ON SCAN-TRON FORM.

- (a) No change
- (b) Increase
- (c) Decrease
- (d) Eliminate the activity entirely

- 13. _____ % Supervising or organizing patient care.
- 14. _____ % Giving direct patient care (excluding teaching).
- 15. _____ % Teaching patients and/or families.
- 16. _____ % Training staff.
- 17. _____ % Managing the appointment system.
- 18. _____ % Managing clinic administration (budget, supplies, scheduling, QA monitoring, administrative reports, personnel management).

650

code number

FOR QUESTIONS NUMBER 19 THROUGH 34 PLEASE RECORD THE TOTAL NUMBER OF CIVILIAN AND MILITARY STAFF OR STUDENT PERSONNEL (WITH RESPECT TO THE POSITIONS LISTED BELOW) IN YOUR USUAL WORK GROUP (INCLUDE YOURSELF); FOR SUPERVISORY PERSONNEL, PLEASE ENTER THE NUMBER UNDER YOUR IMMEDIATE SUPERVISION. USE THE FOLLOWING CHOICES:

- (a) 0
- (b) 1-2
- (c) 3-4
- (d) 5-6
- (e) More than 6

- 19. Staff civilian and military physicians (including Interns, Residents, and Fellows)?
- 20. Staff Physician Assistants?
- 21. Student Physician Assistant?
- 22. Staff nurse practitioners?
- 23. Student nurse practitioners?
- 24. Staff general duty RNs?
- 25. Students of RN programs?
- 26. Other staff RNs (excluding general duty RNs and nurse practitioners)?

(please specify)

- 27. Licensed Vocational or Practical Nurses?
- 28. Students of vocational or practical nursing programs?
- 29. Staff general duty Hospital Corps personnel (NEC 0000)?
- 30. Student general duty Hospital Corps personnel?
- 31. Staff Hospital Corps personnel with NEC Specialty rating?
- 32. Hospital Corps personnel in specialty training (student status)?
- 33. Other staff personnel _____

(please specify)

- 34. Other student personnel _____

(please specify)

WHAT ALTERATIONS IN NUMBERS OF PERSONNEL WOULD YOU RECOMMEND ASSUMING THE SAME NUMBER OF PHYSICIAN, PHYSICIAN ASSISTANT, AND NURSE PRACTITIONER PROVIDERS AND THE SAME PATIENT WORKLOAD IN YOUR AREA OF RESPONSIBILITY.

- (a) No change
- (b) Increase 1-2 persons
- (c) Increase more than 2 persons
- (d) Decrease 1-2 persons
- (e) Decrease more than 2 persons

- 35. RN personnel?
- 36. General duty Hospital Corps personnel (NEC 0000)?
- 37. Technician/Specialist Hospital Corps personnel?
- 38. Licensed Vocational/Practical Nurses?
- 39. Nursing Assistants?
- 40. Clerical support?
- 41. Administrative/Managerial support?
- 42. Other _____

(please specify)

code number

THE FOLLOWING QUESTION FOCUSES ON YOUR PERCEPTION OF THE SOURCE OF CHANGE IN YOUR PRACTICE OF AMBULATORY CARE NURSING.

43. Based on your experience, rank the 5 most significant factors which have influenced a change in your role or activities in the ambulatory care area. Use 1 as the highest and 5 as the lowest and enter directly on the questionnaire. Then, enter the appropriate response on the Scan-Tron Form:

- (a) Choices entered on questionnaire
- (b) No change experienced
- (c) Do not know

_____ Automated data processing equipment
_____ Biomedical instrument innovations
_____ Changes in severity of illness of patients
_____ Command policy or leadership
_____ Continuing education attendance (conferences/classes)
_____ Formal education attendance (college/university)
_____ JCAH accreditation standards
_____ New knowledge (professional nursing literature/research)
_____ Non-nursing health care professional expectations
_____ Non-professional nursing assistant skill levels
_____ Nursing administration policy or leadership
_____ Patient and/or family expectations
_____ Physician delegation of activities
_____ Potential legal liability
_____ Professional Nursing Association standards
_____ Other _____

THE FOLLOWING LIST OF ACTIVITIES DESCRIBES WHAT NURSES ARE DOING IN OUTPATIENT CLINICS AND EMERGENCY ROOMS. PLEASE ADD ACTIVITIES AT THE END OF THE LIST THAT ARE NOT LISTED BUT YOU CONSIDER NECESSARY TO ACCOMPLISH PATIENT CARE, PERSONNEL MANAGEMENT, OR DEPARTMENT ADMINISTRATION. SECTION A (QUESTIONS 44 THROUGH 96) CONTAINS QUESTIONS WHICH ARE NON-PATIENT RELATED DUTIES. SECTION B (QUESTIONS 97 THROUGH 194) CONTAINS QUESTIONS WHICH ARE PATIENT RELATED DUTIES. (SUPERVISORY PERSONNEL WITHOUT PATIENT CARE RESPONSIBILITIES MAY OMIT MARKING SECTION B). USE THE FOLLOWING CRITERIA TO ESTIMATE THE FREQUENCY OF YOUR ACTUAL PERFORMANCE OF THE LISTED ACTIVITIES AND ENTER ON THE SCAN-TRON FORM:

- (a) Daily (eg., at least once every day)
- (b) Weekly (eg., at least once every week)
- (c) Monthly (eg., at least once every month)
- (d) Infrequent (eg., bimonthly to annually)
- (e) Never

SECTION A

- 44. Inventory and order drugs and medical supplies.
- 45. Attend continuing education session in-house.
- 46. Provide consultation service such as training or advice to other health care facilities or organizations.
- 47. Transport specimens, charts, lab results to/from other departments.
- 48. Complete monthly morbidity statistics.
- 49. Interpret and carry out Physician Assistant orders.
- 50. Orient personnel to department.

-
- 51. Train work group personnel in classes/in-service.
 - 52. Participate in "drill" CPR procedures.
 - 53. Participate in "drill" nuclear/biological/chemical contaminated patient care procedures.
 - 54. Interview applicants for positions in the department.
 - 55. Ensure equipment maintenance is performed.
 - 56. Ensure resolution of safety hazards.
 - 57. Plan departmental budget (equipment requests/justifications).
 - 58. Review the departmental budget.
 - 59. Write performance evaluations or fitness reports.

-
- 60. Write or update civilian position descriptions.
 - 61. Participate on Nursing Service committee.
 - 62. Participate on Command committee.
 - 63. Centrifuge blood or urine specimen.
 - 64. Perform urinalysis with microscope.

code number

Criteria:

- (a) Daily (eg., at least once every day)
- (b) Weekly (eg., at least once every week)
- (c) Monthly (eg., at least once every month)
- (d) Infrequent (eg., bimonthly to annually)
- (e) Never

- 65. Perform chemstrip test on blood or urine specimen.
 - 66. Prepare slides for pathology.
 - 67. Order allergens/medications to restock work area.
 - 68. Review patient health records for documentation of care according to standards.
 - 69. Input patient data into computer terminal.
-
- 70. Routinely restock exam room with supplies, equipment, or laundry.
 - 71. Perform housekeeping procedures.
 - 72. Maintain a reference "library" for patients (pamphlets, handouts, visual aides).
 - 73. Count and record narcotics or other controlled drugs.
 - 74. Prepare x-ray or lab requests per written physician orders.
 - 75. Maintain a file of community assistance agencies for patient referral.
 - 76. Monitor working hours (USM/time cards).
 - 77. Schedule work shifts (including schedule adjustments).
 - 78. Give change of shift report or report to supervisory personnel.
 - 79. Process or maintain personnel files (including special requests).
-
- 80. Participate in health-related community affairs (associations, projects).
 - 81. Answer phone and relate messages.
 - 82. Do odd jobs (sort mail, run errands, make coffee).
 - 83. Make arrangements for patient referrals.
 - 84. Make arrangements for patient admissions.
 - 85. File items into patient health record.
 - 86. Retrieve health records from central record office.
 - 87. Review patient health record for completeness.
 - 88. Meet formally with peer(s) to discuss departmental problems/solutions.
 - 89. Sterilize materials using an autoclave (steam or gas).
-
- 90. Disinfect materials using a chemical solution.
 - 91. Meet with health care team regarding a patient-care related problem.
 - 92. Coordinate the daily execution of departmental nursing activities.
 - 93. Give continuing education classes to staff personnel outside your work group.
 - 94. Check inventory of the emergency supply (crash) cart.
 - 95. Check and restock the emergency vehicle (ambulance) equipment inventory.
 - 96. Perform research activities focusing on health service administration or personnel/departmental management.

Criteria:

- (a) Daily (eg., at least once every day)
- (b) Weekly (eg., at least once every week)
- (c) Monthly (eg., at least once every month)
- (d) Infrequent (eg., bimonthly to annually)
- (e) Never

SECTION B

97. Triage patients from telephone contact for appropriate level of health care service.
 98. Triage walk-in patients for priority of care.
 99. Make "rounds" in work area to assess patient flow/status.
 100. Monitor patients during or after invasive medical/surgical procedure.
 101. Take vital signs, Ht/Wt.
 102. Perform post-anesthesia monitoring of patients.
 103. Assess patient complaint and history (intake interview).
 104. Escort patient to exam room.
 105. Examine physical system(s) to determine nursing diagnosis for a nursing plan of care.
 106. Document a formal (complete) nursing assessment on medical record.
 107. Examine physical system(s) to determine nursing and medical diagnoses and prescribe definitive treatment (practitioner/provider role).
 108. Perform mental status exam (eg., orientation x 3, memory, judgment).
 109. Perform neurological assessment.
-
110. Assess patient health and wellness goals.
 111. Assess patient's exposure to occupational health hazards (eg., ionizing radiation).
 112. Perform pelvic exam (practitioner/provider role).
 113. Perform vaginal/rectal exam for pregnant woman for measuring dilation.
 114. Measure fundus of pregnant woman.
 115. Assist as stand-by for physical or pelvic exam.
 116. Examine patient with Wood's Lamp (UV light) (eg., eye stained with fluoresein).
 117. Perform glaucoma test.
 118. Test visual acuity on Armed Forces Vision Tester.
 119. Test visual acuity on eye chart.
-
120. Test depth perception (eg., with Verhoeff Stereopter).
 121. Test color vision (eg., with Farnsworth Lantern).
 122. Dispense non-prescription drugs (for patients to take home).
 123. Administer oral medications.
 124. Administer IM/SC/Intradermal injections (excluding allergy injections).
 125. Administer topical, vaginal, or rectal medications.
 126. Irrigate eyes or ears.

code number

Criteria:

- (a) Daily (eg., at least once every day)
- (b) Weekly (eg., at least once every week)
- (c) Monthly (eg., at least once every month)
- (d) Infrequent (eg., bimonthly to annually)
- (e) Never

- 127. Administer IV injections (push or piggyback).
- 128. Initiate IVs to infant or small child.
- 129. Administer blood or blood product.
- 130. Administer chemotherapy.
- 131. Perform allergy skin testing - prick/intradermal.
- 132. Give allergy injections.
- 133. Administer medication via nebulizer.
- 134. Administer enema or bowel preps.
- 135. Perform bladder catheterization.
- 136. Place NG tube or obtain gastric contents.
- 137. Collect and prepare vaginal or urethral specimens for the lab.
- 138. Obtain arterial blood gas.
- 139. Obtain "legal" blood or urine specimens.

-
- 140. Obtain occult blood test on specimen (Guaiac/Hemoccult).
 - 141. Perform pre-op skin preparations.
 - 142. Restrain an intoxicated, confused, or uncooperative patient.
 - 143. Suction respiratory tract.
 - 144. Perform chest vibration, cupping, and postural drainage.
 - 145. Obtain spirometer reading.
 - 146. Perform pulmonary function tests.
 - 147. Ventilate patient with IPPB.
 - 148. Administer oxygen (mask/cannula/nasal prongs).
 - 149. Measure fluid intake and output.

-
- 150. Perform dressing change.
 - 151. Perform incision and drainage procedure.
 - 152. Set up traction for orthopedic patient.
 - 153. Remove foreign body from ~~subcutaneous tissue~~ body orifice.
 - 154. Assist as attendant on Medevac flight.
 - 155. Remove foreign body from subcutaneous tissue.
 - 156. Perform audiogram.
 - 157. Perform tympanogram.
 - 158. Perform Mono test.
 - 159. Assist in the performance of an x-ray procedure (without contrast).
 - 160. Assist in the performance of an x-ray procedure (with contrast).
 - 161. Debride severely burned patient.
 - 162. Perform kidney dialysis (eg., in a Nephrology Clinic).

650

code number

Criteria:

- (a) Daily (eg., at least once every day)
- (b) Weekly (eg., at least once every week)
- (c) Monthly (eg., at least once every month)
- (d) Infrequent (eg., bimonthly to annually)
- (e) Never

- ↑ 163. Perform peritoneal lavage or dialysis.
 - ↑ 164. Suture wounds/lacerations.
 - ↑ 165. Remove sutures.
 - 166. Assist with pacemaker insertion (eg., Cordis Kit).
 - ↑ 167. Do Treadmill, Step, or Stress EKG.
 - ↑ 168. Do 12 Lead EKG.
 - ↑ 169. Place patient on cardiac monitor.
-
- ↑ 170. Read EKG or cardiac monitor.
 - ↑ 171. Screen lab, x-ray, or tissue results for abnormalities.
 - 172. Assist with surgical procedure in clinic/ER.
 - 173. Assist with surgical procedure in Main OR.
 - 174. Assist with lumbar puncture.
 - 175. Assist with endoscopic procedure.
 - ↑ 176. Measure range of motion of joints in degrees.
 - ↑ 177. Give ultrasound treatment.
 - ↑ 178. Give diathermy treatment.
 - 179. Inform patient or family about Command/Department policies.
-
- 180. Telephone patients to follow-up on condition or need for prescription.
 - 181. Perform pre-procedure patient teaching.
 - 182. Perform post-procedure patient teaching.
 - ↑ 183. Individually counsel patient or family undergoing situational stress (exclude substance abuse).
 - ↑ 184. Individually counsel patient or family who have problems due to substance abuse.
 - 185. Counsel patient to seek special help from social worker, outside community agency, Chaplain, or physician.
 - 186. Educate patient(s) or family in structured classroom setting (eg., lecture, audiovisuals, planned materials).
 - 187. Instruct patient(s) in unplanned session (self-care, activities of daily living, diet, care of wound, safety, medication protocol, crutch walking, range-of-motion exercise, etc.).
 - 188. Respond to patient complaining about service.
 - 189. Transport patient to other department or to vehicle.
 - ↑ 190. Assist on ambulance runs.
 - ↑ 191. Make appointments for patients.
 - ↑ 192. Log in patients.

code number

Criteria:

- (a) Daily (eg., at least once every day)
- (b) Weekly (eg., at least once every week)
- (c) Monthly (eg., at least once every month)
- (d) Infrequent (eg., bimonthly to annually)
- (e) Never

193. Perform "exit" interview of the patient to give discharge instructions, to review their record, and to obtain their signature, if required.
194. Perform research activities focusing on patients' clinical, biophysical, or psychological parameters.

IF YOU CHOOSE, RECORD OTHER SIGNIFICANT PATIENT CARE RELATED OR NON-PATIENT CARE RELATED ACTIVITIES BELOW (PLEASE DESCRIBE BRIEFLY AND ENTER THE APPROPRIATE SCAN-TRON MARK):

195. _____
196. _____
197. _____
198. _____
199. _____
200. _____

Please Record Your End Time
In Military Hours: _____

THANK YOU FOR YOUR ASSISTANCE AND TIME IN THE COMPLETION OF THIS QUESTIONNAIRE. ADDITIONAL COMMENTS MAY BE ENTERED ON THE BACK OF THIS FORM.

APPENDIX B

METHODOLOGY FOR PHASE II AND III

Phase II (FY86 & 87) involves conducting work sampling and time-motion studies to objectively document the direct and indirect nursing activities required to provide patient care in the ambulatory care setting. The clinical services included in FY86 were the Emergency Department/Urgent Care, Allergy/ Immunization, Primary Care (including Acute Care Clinic and Military Sick Call), Obstetric-Gynecology, and Pediatrics. Clinical services added in FY87 included Gastroenterology, General Surgery, Internal Medicine, and Orthopedics.

(a) Indirect Care Study - The definitions or categories of indirect care activities and the work sampling technique were adapted from the Army's Indirect Care Study (Misener and Frelin, 1983). Work sampling was used in representative field sites to determine the amount of time devoted to indirect care activities (including unit/personnel administration, transportation or travel, communication, charting, patient care conferences, off-unit tasks, and environmental or cleaning tasks). Work sampling also documented personal time and delay/wait time.

(b) Direct Care Study - Operational definitions for direct care activities were developed in preparation for time-and-motion studies. The code numbers from Army's Direct Care Study (Sherrod, 1981) were referenced for comparison when similar activities were timed. Each direct care activity found to be significant in the documentation of nursing time will be considered for inclusion in the patient classification instrument.

(3) Phase III (FY87) consists of developing the outpatient classification tools that will translate patient workload information into nursing personnel requirements.

(a) Instrument Design - A patient classification instrument will be developed and pilot tested in each individual clinical area. Using a factor evaluative approach, the instrument design will include times, or weighted points, that indicate the relative intensity of time involved in the various nursing activities. The choice of a factor evaluative design rather than a prototype instrument is based on the goal of developing a more objective tool that documents nursing time. A factor evaluative instrument categorizes patients on the basis of total nursing time rather than on a subjective description of patient acuity of diagnostic type, avoiding a potential problem of stereotyping a patient or classifying a patient whose condition changes from less acutely ill to more acutely ill during the same visit. Research has shown that the medical diagnosis of a patient does not convey a clear understanding of the nursing workload, since differences in age, sex, social background, personality, and previous health tend to modify responses to illness and treatment. (Gillies, 1982, p. 220). In addition, a factor evaluative tool creates the potential for documentation of real-time nursing care as opposed to a system that depends entirely upon historical episodes of care for similar types of patients to document current nursing activities.

(b) Staffing Formula Development - The ambulatory care manpower model that best predicts registered nurse (RN), non-RN (HM-0000, LVN/LPN, and N.A.), and Hospital Corpsman Technician staffing will be employed in the

staffing formula. Issues to be addressed include the staffing and scheduling of various skill levels of personnel using varying lengths of shifts, and unique requirements of individual facilities (e.g., Nurse or Hospital Corps personnel on operational readiness teams or Medevac flight.

(c) Patient Classification System Implementation - The implementation plan will include recommendations for the frequency of patient classification in the various types of departments or facilities, the utilization of information for management analysis, the testing for validity and reliability, the utilization of the system for prospective daily staffing as well as for retrospective trend analysis, the updating of direct and indirect care measurements, and the forwarding of information to higher authorities.

APPENDIX C

AMBULATORY CARE CLIENT CLASSIFICATION INDEX (ACCCI)

Categories, Definitions and Expert Weights

Joyce A. Verran, Ph.D., R.N.

DIRECT CARE:

GENERAL ASSESSMENT: Assessment of client health and knowledge of health maintenance, socio-economic status, and emotional status. (68.09)

FOLLOW-UP ASSESSMENT: Assessment of client's status as it relates to compliance with plan of care and progress of condition or disease. (54.46)

SYSTEM: Explanation of and/or orientation to ambulatory care system and its functioning and related services. (28.27)

ELIGIBILITY SCREENING: Assessment of client's status as it relates to finance residence, etc. Eligibility for clinic care. (42.67)

PROCEDURE SUPPORT: Provision of emotional support before and during clinic procedures. (48.68)

DOCUMENTS: Organization of documents for client's visit. (23.25)

PREPARATION: Physical preparation of client for physician visit, e.g. provision of gown, etc. (19.90)

ASSISTING: Provision of assistance to physician for procedures including preparation of equipment and clean-up. (27.90)

CHAPERONING: Assistance not necessary, but physical presence is required for legal reasons. (12.30)

MEASUREMENT: Measurement and recording of physiological and growth indices. (36.18)

SPECIMENS: Collection of all specimens including cultures. (41.25)

SURGICAL PREPARATION: Provision of physical care in preparation for a surgical procedure to be done in clinic or outpatient surgery. (33.77)

RECOVERY: Care given while patient is recovering from surgical or other clinic procedure. (53.27)

DRESSING: Application of dressing and wraps. (31.40)

APPLICATIONS: Administration of any therapeutic applications to body surface including dermatology treatments and treatments to reduce fever or injury.

INVASIVE: Performance of invasive procedures such as catheterizations. (52.09)

APPLIANCES: Application and removal of casts and other appliances, if performed by a member of the nursing staff. (42.95)

MEDICATION: Administration of medication by any route except IV, (41.05)

IV MEDICATIONS: Administration of medication by IV route. (60.04)

IV THERAPY: Administration if IV fluids either plain or with medications added. (59.25)

BLOOD THERAPY: Administration of blood and blood products.

CLIENT ADVOCACY: Protection of client's right to care and attention to complaints regarding care or service. (54.55)

TRANSPORTING: Transportation of clients to other services. (11.90)

DIRECTING: Provision of directions to clients regarding location of other services. (16.82)

COORDINATION: Coordination and timing of client needs with the physician, lab, etc. (33.36)

COMMUNICATION: Provision or procurement of special communication assistance. (18.73)

COMFORT: Attention given to client comfort in regard to hunger, thirst, elimination and information as to reasons for delay, etc. (29.18)

HEALTH STATUS SUPPORT: Attention to concerns and verbalizations regarding health status and reinforcement of positive aspects of health practice. (50.45)

TERMINAL/CHRONIC ILLNESS: Provision of support/guidance to clients and families of clients who are terminally or chronically ill. (66.18)

HEALTH CARE MAINTENANCE PROGRAM: Provision of a planned educational program related to prevention and/or health care maintenance. (61.30)

PREVENTIVE CARE INSTRUCTION: Instructions regarding preventive aspects of health care and avoidance of disease development and complications. (53.00)

PROVIDE INFORMATION: Provision of information regarding general health maintenance and normal body functioning. (47.91)

PLAN OF CARE: Explanation and planned reinforcement of plan of care and physician instructions. (55.73)

STANDARDIZED INSTRUCTIONS: Instructions on home and/or self care that are routine and standardized. (54.00)

INDIVIDUALIZED INSTRUCTIONS: Instructions on home and/or self care designed for a specific patient problem, and are unstandardized and nonroutine. (63.73)

ILLNESS/CONDITION PROGRAM: Provision of a planned educational program related to a specific condition or disease state. (61.18)

PHYSICAL: Performance of a complete physical exam and/or developmental assessment. (62.90)

HISTORY: Procurement of a complete health and social history. (62.70)

PROTOCOL CARE: Provision of medical therapy or the monitoring of that therapy following multiple-decision protocols. (52.00)

REFERRAL: Evaluation of need for and actual referral to other agencies/health care providers. (47.09)

TRIAGE: Screening of patient problems either in person or by phone with resolution of that problem either by advice or referral. Involves first patient contact with a health care provider during a specific clinic visit or call. (62.10)

INDIRECT CARE (NON-CLIENT CENTERED CARE)

MAINTENANCE: Maintenance of the clinic and equipment (e.g., cleaning and stocking rooms).

MATERIALS: Development of educational material and standards of care.

UPDATING: Maintenance of updated knowledge of new care practices and current literature appropriate to service and role.

APPENDIX D

Direct Care Activities Performed Daily/Weekly

<u>TYPE OF ACTIVITY</u>	<u>PERCENT OF RESPONDENTS</u>
Patient Care Rounds	95
Vital signs	91
Log in pt	90
Triage	89
Pt escort	87
Assessment of pt hx (intake interview)	87
Inform Pt/family of command/dept. policy	85
Administer injections	79
Respond to pt complaint	79
Pt instruction	70
Administer oral medications	67
Stand-by	65
Monitor pt	64
Make appointments	64
Pre-procedure pt teaching	64
Post procedure pt teaching	57
Discharge interview	57
Physical assessment for nursing care plan	53
Wellness assessment	53
Obtain occult blood test on specimen	51
Mental status examination	50
Perform 12 lead EKG	50
Pt transportation	48
Dressing Change	48
Visual acuity testing	47
Setup pt cardiac monitoring	46
Administer oxygen	46
Complete nursing assessment of medical record	46
Administer IV injections	46
Read EKG/cardiac monitor	45
Irrigation of eyes/ears	44
Administer nebulized medication	43
Administer topical, vaginal, or rectal medication	40
Collect vaginal or urethral lab specimens	40
Neurological assessment	38
Pt or family counseling (stress)	36
Pt counseling (social)	31
Bladder catheterization	30
Start IV on infant or child	28
Suture removal	26
Measure intake and output	26
Ultra-violet light examination	24
Nasal gastric tube insertion	23

ABGs	22
Physical examination	21
Spirometry	20
Occupational health assessment	20
Obtain legal blood/urine samples	20
Pt restraint	20
Pre-operative skin prep	17
Allergy injections	16
Dispensing drugs (non-prescription)	16
Perform a mono test	13
Assist a lumbar puncture	12
Formal pt education (lecture, classroom)	11
1:1 pt counseling	11
Post anesthesia monitoring	11
Ambulance run	11
Enema/bowel prep	10
assist with X-ray procedure	10
Perform range of motion test on pt	9
Incision and Drainage	8
Suturing	8
Administer blood/blood products	7
Visual acuity testing with a machine	7
Respiratory tract suctioning	7
Removal of a foreign body	6
Research activities of pt's medical parameters	4
Skin testing	4
Pulmonary function testing	4
Remove foreign body from skin	4
Typanogram	4
Operating room surgical assistance	4
Intermittent positive pressure breathing ventilation	4
Assist with endoscopy	3
Administer chemotherapy treatment	3
Perform pelvic examination	3
Perform Farnsworth lantern test	2
Perform audiogram	2
Perform vaginal/rectal examination	2
Perform a stress EKG	2
Peritoneal lavage/dialysis	2
Debride burn pt	2
Perform a glaucoma test	2
Test depth perception	1
MEDEVAC flight attendant	1
Orthopedic traction	1
Assist contract X-ray procedure	1
Administer ultrasound treatment	1
Administer diathermy treatment	1
Perform kidney dialysis	1
Assist pacemaker insertion	1

APPENDIX E.

Indirect Care Activities

<u>TYPE OF ACTIVITY</u>	<u>PERCENT OF RESPONDENTS</u>
Phones and Messages	95
Prepare X-ray/lab chits	86
Supervise	82
Inventory/order drugs/supplies	76
Arrange Pt referrals	76
Screen lab/x-ray chits	73
Odd jobs	72
Pt records filing	72
Retrieve health records	69
Transport specimens	69
Supply restock	66
Review health records	59
Pt admission arrangements	58
Inventory emergency supplies	57
Shift report	56
Standards review of medical records	55
Housekeeping	55
Ordering meds/restock	53
Control drug count	51
Maintain reference library for pts	50
Chemical disinfection	47
Monitor USM/time cards	47
Monitor equipment maintenance	42
Personnel file management	41
Inservice training	39
Nursing team meeting	38
Chemical strip testing of blood/urine samples	38
Resolution of safety hazards	37
Executing Physician Assistants orders	36
Maintain file of community assistance agencies	34
Dept. meetings	32
Continuing education	30
Preparation of pathology slides	30
Personnel orientation	27
Schedule shift work	23
Computer input of pt information	22
Monthly morbidity statistics	21
Nursing service consultation	19
Consultation to other health care facilities	19
Check and restock ambulance	15
CPR drill	14
Command committee	11

Centrifuge blood/urine sample	11
Participate in community related health projects	9
Performance evaluations	8
Autoclave	8
Administrative research	7
Outside continuing education	6
Urinalysis	4
Dept. budget planning	4
NBC drill	3
Interviewing applicant	1

APPENDIX F

DEFINITIONS

The following definitions are commonly found in the literature and are intended to clarify concepts used throughout the study.

Direct FTEs - full time equivalent positions which provide hands-on patient care.

Factor evaluation patient classification instrument - classifies the level of nursing care of patients by means of totaling up points (usually minutes) from the specific tasks or elements of care either carried out or planned to be carried out for a specific patient; the patient may be placed in a category according to the amount of nursing time necessary or simply the total score summed with other patients to reflect the daily direct care staffing requirement. (Verran, 1982)

Full-time equivalent (FTE) - the equivalent of one full-time staff member's normal working schedule, usually 2,080 hours/year or 40 hours/wk for 52 weeks.

Indirect FTEs - FTE positions which provide support or department administration.

Patient classification system - a means to determine the appropriate number and skill level of nursing manpower requirements commensurate with the anticipated needs of patients; typically, a system of categorizing patients by pre-set criteria and assigning a numerical score that quantifies the number and type of nursing requirements; the direct care component of the staffing system thus identified, the system further defines manpower needed for indirect care and non-productive time. (Gillies, 1982, p. 221)

Prototype patient classification instrument - classifies the acuity of patients by means of diagnostic descriptions and conditions of typical patients in each category; the rator compares the actual characteristics of a patient with those in each category, classifies the patient in the appropriate category, and uses a pre-determined amount of time that characterizes patients within the category to calculate nursing staff requirements; the sum of patients' staffing requirements in each category is the direct care component of the staffing system. (Butler, 1986)

Role - the cluster of functions that come to be expected of a given class of workers within the position they typically occupy in the organization in which they work; includes attributes that are pivotal, relevant, and peripheral to the perception of a role occupant. (Klein, Malone, Bennis, and Berkowitz, 1961)

Staffing mix - the percent of total staff allocated to each skill level to meet the staffing needs of the unit.

Care indicators - activities or descriptors of a client's need for nursing services.

Critical indicators of care - activities most crucial for the accurate identification of the appropriate category of care on a pt class instrument. (Verran, 1986 p. 240)

TO THE NURSING & HOSPITAL CORPS STAFF:

USING A PENCIL HEAVILY MARK ALL THE BOXES INDICATING THE NURSING ACTIVITIES YOU PERFORMED FOR THE PATIENT.

YOU MAY ADD ACTIVITIES NOT LISTED TO EACH APPROPRIATE SECTION OR AT THE END OF THE FORM.

FACILITY _____

CLINIC _____

DATE _____

LOG IN/OUT

- ☐ Clinic log-in process
- ☐ ER log-in
- ☐ Patient check-out process
- ☐ Patient triage/eligibility
- ☐ Patient triage stretcher patient
- ☐ Prep. for adm. to critical bed
- ☐ Prep. for adm. to non-crit. bed
- ☐ Prep. pt transfer to other facility
- ☐ Prescription renewal
- ☐
- ☐
- ☐

WEIGHTS/MEASURES

- ☐ Ambulatory weight
- ☐ Blood pressure
- ☐ Fetal heart tones, doppler
- ☐ Fetal heart tones, manual
- ☐ Infant weight
- ☐ Oral temp/pulse/resp/manual BP
- ☐ Peak flow
- ☐ Pulse - apical
- ☐ Rectal temp/pulse, adult
- ☐ Rectal temp/pulse, pediatric
- ☐ Tilts/orthostatic vital signs
- ☐ Visual acuity
- ☐ UT/urine dipstick/SP(man./automated)
- ☐ WT/BP (manual/automated)
- ☐ Weight, height, adult
- ☐
- ☐
- ☐

MEDICATIONS/IV THERAPY

- ☐ Assist with IV insertion - child
- ☐ Intra-muscular, narcotic
- ☐ Intra-muscular, non-narcotic
- ☐ IV - blood or blood products
- ☐ IV bag/bottle change
- ☐ IV infusion - IV push med
- ☐ IV infusion - piggyback medication
- ☐ IV insertion/scalp vein
- ☐ IV or arterial line - termination
- ☐ Nebulizer treatment, adult
- ☐ Nebulizer treatment, pediatric
- ☐ Oral med
- ☐ SQ infiltration by xylocaine
- ☐ Sublingual med
- ☐
- ☐
- ☐
- ☐

GENERAL PROCEDURES/TREATMENTS

- ☐ Drg change, lg (over 4" x 8")
- ☐ Drg change, sm (less than 4 x 8")
- ☐ Foley catheterization
- ☐ Foley catheter removal
- ☐ Giving a bedpan
- ☐ Giving a urinal
- ☐ Ice pack
- ☐ Irrigation, ear - adult
- ☐ Irrigation, ear - pediatric
- ☐ Irrigation, wound
- ☐ Nasogastric tube - insertion
- ☐ Nasogastric tube - removal
- ☐ Observation
- ☐ Soak/remove from soak, hand/foot
- ☐ Standby, physical exam
- ☐ Standby pelvic
- ☐ Suture/skin clip removal, under 15
- ☐ Suture/skin clip removal, over 15
- ☐ Suture wound, under 15 sutures
- ☐ Suture wound, over 15 sutures
- ☐ Undress patient
- ☐ Warm so
- ☐
- ☐
- ☐
- ☐

INSTRUCTION/EDUCATION

- ☐ Answer patient question
- ☐ Explanation of procedures/test
- ☐ Teaching, diagnostic test
- ☐ Teaching, preoperative instruction
- ☐ Teaching, self-med administration
- ☐ Teaching, urine clean catch
- ☐ Visit with pt/purposeful interaction
- ☐
- ☐
- ☐

EMERGENCY PROCEDURES

- ☐ Airway insertion
- ☐ Cardiopulmonary resuscitation
- ☐ Nosebleed management
- ☐ Respiratory resuscitation, ambu
- ☐ Seizure care
- ☐
- ☐
- ☐

PATIENT
LAST NAME _____

REPRODUCED AT GOVT. EXPENSE

ASSESSMENT/SUPPORT

- 00 00 Bowel sound assessment
- 00 00 Clinic exit interview
- 00 00 Clinic intake interview
- 00 00 Corneal exam
- 00 00 Formal patient contact complaint
- 00 00 Gastrointestinal assessment
- 00 00 Infant pulmonary assessment
- 00 00 Mental alertness
- 00 00 Motor/sensory testing
- 00 00 Neurovascular check
- 00 00 Nursing history (complete)
- 00 00 Orientation
- 00 00 Pt/sig. other support
- 00 00 Ped growth and dev. assessment
- 00 00 Pulmonary assessment
- 00 00 Pupil reflexes
- 00 00 Sensory deficient patient support
- 00 00 Vaginal bleeding assessment
- 00 00
- 00 00
- 00 00

TRANSPORT/SAFETY

- 00 00 Adjust restraint
- 00 00 Apply body restraint
- 00 00 Apply 2 point leather restraint
- 00 00 Apply 4 point leather restraint
- 00 00 Apply wrist/ankle restraint
- 00 00 Place infant on papoose board
- 00 00 Secure child in mummy device
- 00 00 Transfer/ambulance stretcher/gurney
- 00 00
- 00 00
- 00 00

DIAGNOSTIC TESTS

- 00 00 Arterial puncture - blood gases
- 00 00 Blood sample/lancet, heel/finger
- 00 00 ECG, CAPOC
- 00 00 ECG, CAPOC linked to modem
- 00 00 ECG, rhythm strip-monitor
- 00 00 Hemoccult or/guaitac (GI) testing
- 00 00 Legal alcohol/drug screen
- 00 00 Lumbar puncture
- 00 00 Pathology specimens
- 00 00 PKU heel sticks
- 00 00 Pregnancy test
- 00 00 School physical exam lab work
- 00 00 Septic work up protocol
- 00 00 Vag/pelvic exam/prepare slides
- 00 00 Straight cath. for UA specimen
- 00 00 Thayer-Martin cultures, male
- 00 00 Urine dip and spin
- 00 00 Urine dip/chemstrip
- 00 00 Venipuncture - blood culture
- 00 00 Venipuncture - blood samples
- 00 00 Venipuncture - pediatric
- 00 00
- 00 00
- 00 00

ER, GENERAL

- 00 00 Body temp regulation, hypothermic
- 00 00 Death care
- 00 00 Fowlers/trendelenburg position
- 00 00 Isolation, gowning and gloving
- 00 00 Ring cutting
- 00 00 Seizure precautions
- 00 00 Thermal blanket
- 00 00

ER, CARDIAC

- 00 00 Adjust cardiac monitor/leads
- 00 00 Cardioversion/defibrillation
- 00 00 Central venous line placement
- 00 00 External pacemaker
- 00 00 Hickman/broviac catheter access
- 00 00 Intravenous cutdown
- 00 00 Mast suit application/removal
- 00 00 Mediport (central venous access)
- 00 00 ECG, rhythm strip measurement
- 00 00 Rotating tourniquets, automated
- 00 00 Rotating tourniquets, manual
- 00 00

ER, GYN

- 00 00 Culdocentesis
- 00 00 Emergency delivery
- 00 00 Sexual assault/legal specimens
- 00 00

ER, NP

- 00 00 Suicide precautions
- 00 00

ER, PULMONARY

- 00 00 Chest PT with postural drainage
- 00 00 Chest tube, insertion
- 00 00 Chest tube, removal
- 00 00 Cough and deep breathe
- 00 00 Extubation
- 00 00 Incentive spirometer
- 00 00 Intubation
- 00 00 Oxygen administration, mask
- 00 00 Oxygen administration, prongs
- 00 00 Resp. resuscitation, respirator
- 00 00 Suctioning, endotracheal
- 00 00 Suctioning, naso-tracheal
- 00 00 Suctioning, oral
- 00 00 Suctioning, tracheostomy
- 00 00 Tracheostomy, changing tube
- 00 00 Tracheostomy, cleaning cannula
- 00 00 Tracheostomy, dressing change
- 00 00 Thoracentesis
- 00 00

ER, TRAUMA

- 00 00 Child abuse
- 00 00 Debridement (burn) procedure
- 00 00 Decubitus care
- 00 00 Extremity soft tissue injury care
- 00 00 Foreign body removal
- 00 00 Head/neck trauma care
- 00 00 Incision and drainage small abscess
- 00 00 Needlestick protocol
- 00 00 Spouse abuse protocol
- 00 00 Subungual hematoma release
- 00 00

ER, OTHER

- 00 00
- 00 00
- 00 00
- 00 00
- 00 00
- 00 00
- 00 00

TO THE NURSING & HOSPITAL CORPS STAFF:

USING A PENCIL HEAVILY MARK ALL THE BOXES INDICATING THE NURSING ACTIVITIES YOU PERFORMED FOR THE PATIENT.

YOU MAY ADD ACTIVITIES NOT LISTED TO EACH APPROPRIATE SECTION OR AT THE END OF THE FORM.

FACILITY _____
CLINIC _____
DATE _____

LOG IN/OUT

- ☐ ☐ Clinic log-in process
- ☐ ☐ ER log-in
- ☐ ☐ Patient check-out process
- ☐ ☐ Patient triage/eligibility
- ☐ ☐ Patient triage stretcher patient
- ☐ ☐ Prep. for adm. to critical bed
- ☐ ☐ Prep. for adm. to non-crit. bed
- ☐ ☐ Prep. pt transfer to other facility
- ☐ ☐ Prescription renewal
- ☐ ☐
- ☐ ☐
- ☐ ☐

WEIGHTS/MEASURES

- ☐ ☐ Ambulatory weight
- ☐ ☐ Blood pressure
- ☐ ☐ Fetal heart tones, doppler
- ☐ ☐ Fetal heart tones, manual
- ☐ ☐ Infant weight
- ☐ ☐ Oral temp/pulse/resp/manual BP
- ☐ ☐ Peak flow
- ☐ ☐ Pulse - apical
- ☐ ☐ Rectal temp/pulse, adult
- ☐ ☐ Rectal temp/pulse, pediatric
- ☐ ☐ Tilts/orthostatic vital signs
- ☐ ☐ Visual acuity
- ☐ ☐ UT/urine dipstick/BP(man./automated)
- ☐ ☐ WT/BP (manual/automated)
- ☐ ☐ Weight, height, adult
- ☐ ☐
- ☐ ☐

MEDICATIONS/IV THERAPY

- ☐ ☐ Assist with IV insertion - child
- ☐ ☐ Intra-muscular, narcotic
- ☐ ☐ Intra-muscular, non-narcotic
- ☐ ☐ IV - blood or blood products
- ☐ ☐ IV bag/bottle change
- ☐ ☐ IV infusion - IV push med
- ☐ ☐ IV infusion - piggyback medication
- ☐ ☐ IV insertion/scalp vein
- ☐ ☐ IV or arterial line - termination
- ☐ ☐ Nebulizer treatment, adult
- ☐ ☐ Nebulizer treatment, pediatric
- ☐ ☐ Oral med
- ☐ ☐ SQ infiltration by xylocaine
- ☐ ☐ Sublingual med
- ☐ ☐
- ☐ ☐
- ☐ ☐

GENERAL PROCEDURES/TREATMENTS

- ☐ ☐ Drsg change, lg (over 4" x 8")
- ☐ ☐ Drsg change, sm (less than 4 x 8")
- ☐ ☐ Foley catheterization
- ☐ ☐ Foley catheter removal
- ☐ ☐ Giving a bedpan
- ☐ ☐ Giving a urinal
- ☐ ☐ Ice pack
- ☐ ☐ Irrigation, ear - adult
- ☐ ☐ Irrigation, ear - pediatric
- ☐ ☐ Irrigation, wound
- ☐ ☐ Nasogastric tube - insertion
- ☐ ☐ Nasogastric tube - removal
- ☐ ☐ Observation
- ☐ ☐ Soak/remove from soak, hand/foot
- ☐ ☐ Standby, physical exam
- ☐ ☐ Standby pelvic
- ☐ ☐ Suture/skin clip removal, under 15
- ☐ ☐ Suture/skin clip removal, over 15
- ☐ ☐ Suture wound, under 15 sutures
- ☐ ☐ Suture wound, over 15 sutures
- ☐ ☐ Undress patient
- ☐ ☐ Warm soak
- ☐ ☐
- ☐ ☐
- ☐ ☐

INSTRUCTION/EDUCATION

- ☐ ☐ Answer patient question
- ☐ ☐ Explanation of procedures/test
- ☐ ☐ Teaching, diagnostic test
- ☐ ☐ Teaching, preoperative instruction
- ☐ ☐ Teaching, self-med administration
- ☐ ☐ Teaching, urine clean catch
- ☐ ☐ Visit with pt/purposeful interaction
- ☐ ☐
- ☐ ☐
- ☐ ☐

EMERGENCY PROCEDURES

- ☐ ☐ Airway insertion
- ☐ ☐ Cardiopulmonary resuscitation
- ☐ ☐ Nosebleed management
- ☐ ☐ Respiratory resuscitation, ambu
- ☐ ☐ Seizure care
- ☐ ☐
- ☐ ☐

PATIENT
LAST NAME _____

ASSESSMENT/SUPPORT

- 01 01 Bowel sound assessment
- 01 02 Clinic exit interview
- 01 03 Clinic intake interview
- 01 04 Corneal exam
- 01 05 Formel patient contact complaint
- 01 06 Gastrointestinal assessment
- 01 07 Infant pulmonary assessment
- 01 08 Mental alertness
- 01 09 Motor/sensory testing
- 01 10 Neurovascular check
- 01 11 Nursing history (complete)
- 01 12 Orientation
- 01 13 Pt/sig. other support
- 01 14 Ped growth and dev. assessment
- 01 15 Pulmonary assessment
- 01 16 Pupil reflexes
- 01 17 Sensory deficient patient support
- 01 18 Vaginal bleeding assessment
- 01 19
- 01 20
- 01 21

TRANSPORT/SAFETY

- 02 01 Adjust restraint
- 02 02 Apply body restraint
- 02 03 Apply 2 point leather restraint
- 02 04 Apply 4 point leather restraint
- 02 05 Apply wrist/ankle restraint
- 02 06 Place infant on papoose board
- 02 07 Secure child in mummy device
- 02 08 Transfer/ambulance stretcher/gurney
- 02 09
- 02 10
- 02 11

DIAGNOSTIC TESTS

- 03 01 Arterial puncture - blood gases
- 03 02 Blood sample/lancet, heel/finger
- 03 03 ECG, CAPOC
- 03 04 ECG, CAPOC linked to modem
- 03 05 ECG, rhythm strip-monitor
- 03 06 Hemocult or/guialac (GI) testing
- 03 07 Legal alcohol/drug screen
- 03 08 Lumbar puncture
- 03 09 Pathology specimens
- 03 10 PKU heel sticks
- 03 11 Pregnancy test
- 03 12 School physical exam lab work
- 03 13 Septic work up protocol
- 03 14 Vag/pelvic exam/prepare slides
- 03 15 Straight cath. for UA specimen
- 03 16 Thayer-Martin cultures, male
- 03 17 Urine dip and spin
- 03 18 Urine dip/chemstrip
- 03 19 Venipuncture - blood culture
- 03 20 Venipuncture - blood samples
- 03 21 Venipuncture - pediatric
- 03 22
- 03 23
- 03 24

- 04 01 Ace wrap
- 04 02 Arthrocentesis
- 04 03 Arthroscopy
- 04 04 Brace, knee
- 04 05 Brace, ROM
- 04 06 Carpal tunnel release
- 04 07 Cast, cylinder
- 04 08 Cast, double hip spica
- 04 09 Cast, 1/2 hip spica
- 04 10 Cast, gauntlet
- 04 11 Cast, knee hinge
- 04 12 Cast, long arm
- 04 13 Cast, long arm thumb spica
- 04 14 Cast, long leg non-weight bearing
- 04 15 Cast, long leg walker
- 04 16 Cast, PTB (lower leg)
- 04 17 Cast, reinforce
- 04 18 Cast, removal only
- 04 19 Cast, removal and x-ray
- 04 20 Cast, scoliosis jacket
- 04 21 Cast, shoe/boot
- 04 22 Cast, short arm
- 04 23 Cast, short arm with out-rigger
- 04 24 Cast, short leg non-weight bearing
- 04 25 Cast, short leg walker
- 04 26 Cast, splint knee immobilizer
- 04 27 Cast, splint, posterior leg
- 04 28 Cast, splint, radial gutter
- 04 29 Cast, splint, sugar tongs
- 04 30 Cast, splint, ulnar gutter
- 04 31 Cast, splint, volar
- 04 32 Cast, thumb spica
- 04 33 Cervical collar
- 04 34 Clavicle strap
- 04 35 Closed fx reduction assist
- 04 36 De quervain's release assist
- 04 37 Dressing, change
- 04 38 Dressing, immobilizer (Jones)
- 04 39 Incision and drainage
- 04 40 L-S support
- 04 41 Orthopedic post-op exam assist
- 04 42 Pavlik harness
- 04 43 Pin/wire insertion
- 04 44 Pin/wire removal
- 04 45 Podiatry/minor procedure/exostoses
- 04 46 Podiatry/minor/hallux valgus
- 04 47 Podiatry/minor/hammer toe surgery
- 04 48 Podiatry/minor/metatarsal osteot.
- 04 49 Podiatry/minor/resect acces. navic
- 04 50 Release flex contracture/digits
- 04 51 Remov-fibr./lip./neuroma/mass/cyst
- 04 52 Remov-FB/surg.device/hardware
- 04 53 Resect-soft tissue mass/hand/finger
- 04 54 Rev-amput.finger tip(uncomplicated)
- 04 55 Sling
- 04 56 Splint, finger
- 04 57 Splint, repad and reapply
- 04 58 Splint, tennis elbow
- 04 59 Tendon laceration repair assist
- 04 60 Z-plasty on finger assist
- 04 61
- 04 62
- 04 63
- 04 64

TO THE NURSING & HOSPITAL CORPS STAFF:

USING A PENCIL HEAVILY MARK ALL THE BOXES INDICATING THE NURSING ACTIVITIES YOU PERFORMED FOR THE PATIENT.

YOU MAY ADD ACTIVITIES NOT LISTED TO EACH APPROPRIATE SECTION OR AT THE END OF THE FORM.

FACILITY _____

CLINIC _____

DATE _____

LOG IN/OUT

- ☐ ☐ Clinic log-in process
- ☐ ☐ ER log-in
- ☐ ☐ Patient check-out process
- ☐ ☐ Patient triage/eligibility
- ☐ ☐ Patient triage stretcher patient
- ☐ ☐ Prep. for adm. to critical bed
- ☐ ☐ Prep. for adm. to non-crit. bed
- ☐ ☐ Prep. pt transfer to other facility
- ☐ ☐ Prescription renewal
- ☐ ☐
- ☐ ☐
- ☐ ☐

WEIGHTS/MEASURES

- ☐ ☐ Ambulatory weight
- ☐ ☐ Blood pressure
- ☐ ☐ Fetal heart tones, doppler
- ☐ ☐ Fetal heart tones, manual
- ☐ ☐ Infant weight
- ☐ ☐ Oral temp/pulse/resp/manual BP
- ☐ ☐ Peak flow
- ☐ ☐ Pulse - apical
- ☐ ☐ Rectal temp/pulse, adult
- ☐ ☐ Rectal temp/pulse, pediatric
- ☐ ☐ Tilts/orthostatic vital signs
- ☐ ☐ Visual acuity
- ☐ ☐ uT/urine dipstick/BP(man./automated)
- ☐ ☐ WT/BP (manual/automated)
- ☐ ☐ Weight, height, adult
- ☐ ☐
- ☐ ☐
- ☐ ☐

MEDICATIONS/IV THERAPY

- ☐ ☐ Assist with IV insertion - child
- ☐ ☐ Intra-muscular, narcotic
- ☐ ☐ Intra-muscular, non-narcotic
- ☐ ☐ IV - blood or blood products
- ☐ ☐ IV bag/bottle change
- ☐ ☐ IV infusion - IV push med
- ☐ ☐ IV infusion - piggyback medication
- ☐ ☐ IV insertion/scalp vein
- ☐ ☐ IV or arterial line -termination
- ☐ ☐
- ☐ ☐ Nebulizer treatment, adult
- ☐ ☐ Nebulizer treatment, pediatric
- ☐ ☐ Oral med
- ☐ ☐ SQ infiltration by xylocaine
- ☐ ☐ Sublingual med
- ☐ ☐
- ☐ ☐
- ☐ ☐
- ☐ ☐

GENERAL PROCEDURES/TREATMENTS

- ☐ ☐ Drsg change, lg (over 4" x 8")
- ☐ ☐ Drsg change, sm (less than 4 x 8")
- ☐ ☐ Foley catheterization
- ☐ ☐ Foley catheter removal
- ☐ ☐ Giving a bedpan
- ☐ ☐ Giving a urinal
- ☐ ☐ Ice pack
- ☐ ☐ Irrigation, ear - adult
- ☐ ☐ Irrigation, ear - pediatric
- ☐ ☐ Irrigation, wound
- ☐ ☐ Nasogastric tube - insertion
- ☐ ☐ Nasogastric tube - removal
- ☐ ☐ Observation
- ☐ ☐ Soak/remove from soak, hand/foot
- ☐ ☐ Standby, physical exam
- ☐ ☐ Standby pelvic
- ☐ ☐ Suture/skin clip removal, under 15
- ☐ ☐ Suture/skin clip removal, over 15
- ☐ ☐ Suture wound, under 15 sutures
- ☐ ☐ Suture wound, over 15 sutures
- ☐ ☐ Undress patient
- ☐ ☐ Warm soak
- ☐ ☐
- ☐ ☐
- ☐ ☐
- ☐ ☐

INSTRUCTION/EDUCATION

- ☐ ☐ Answer patient question
- ☐ ☐ Explanation of procedures/test
- ☐ ☐ Teaching, diagnostic test
- ☐ ☐ Teaching, preoperative instruction
- ☐ ☐ Teaching, self-med administration
- ☐ ☐ Teaching, urine clean catch
- ☐ ☐ Visit with pt/purposeful interaction
- ☐ ☐
- ☐ ☐
- ☐ ☐
- ☐ ☐

EMERGENCY PROCEDURES

- ☐ ☐ Airway insertion
- ☐ ☐ Cardiopulmonary resuscitation
- ☐ ☐ Nosebleed management
- ☐ ☐ Respiratory resuscitation, ambu
- ☐ ☐ Seizure care
- ☐ ☐
- ☐ ☐
- ☐ ☐
- ☐ ☐

PATIENT

LAST NAME _____

REFERENCES

- Brosnan, J. & Johnston, M. (1980). Stressed but satisfied: Organizational change in ambulatory care. Journal of Nursing Administration, 10(11), 43-46
- Butler, W. R. (1986). ED patient classification matrix: development and testing of one tool. Journal of Emergency Nursing, 12(5), 279-285.
- Fisher, S. G., Heller, B., Hastings, C., & Tighe, M. G. (1983). A descriptive study of the ambulatory care nursing role at the Clinical Center. Unpublished manuscript, National Institute of Health Clinical Center, Bethesda, MD.
- Gillies, D. A. (1982). Nursing management: A systems approach. Philadelphia: W. B. Saunders Company.
- Hooks, M., Dewitz-Arnold, D., & Westbrook, L. (1980). The role of the professional nurse in the ambulatory care setting. Nursing Administrative Quarterly, 4(4), 12-17.
- Ingersoll, G. L. (1984). Implementing primary nursing in a surgical outpatient department. Nursing Management, 15(5), 32-38.
- Joint Commission on Accreditation of Hospitals. (1985). Accreditation Manual for Hospitals. Chicago, IL: JCAH.
- Kepnes, L. J. (1984). Professional nursing practice in ambulatory care. Nursing Management, 15(5), 28-30.
- Klein, M., Malone, M. F., Bennis, W. G., & Berkowitz, N. H. (1961). Problems of measure patient care in the outpatient department. Journal of Health and Human Behavior, 2 (Summer), 138-144.
- Marszalck, E. (1980). Ambulatory care nursing: At the crossroads? Nursing & Health Care, 1, 254-255.
- Misener, T. R., & Frelin, A. J. (1983). Time Spent In Direct Nursing Care. (HCSD Report# 83-004). Fort Sam Houston: U.S. Army Health Sciences Command. (NTIS No. DA 301090)
- O'Neal, Ellen A. (1978). A framework for ambulatory case evaluation. Journal of Nursing Administration, 8, 15-20.
- Sherrod, S. M., Rauch, T. M., & Twist, P.A. (1981). Nursing Care Hour Standards, Part I-IV. (HCSD Report #81-009). For Sam Houston, TX: U.S. Army Health Services Command (NTIS Nos. AD A109883-6).

- Verran, J. A. (1982). Development of the ambulatory care client classification instrument. University Microfilms International (No. 8217479)
- Verran, J. A. (1986). Testing a classification instrument for the ambulatory care setting. Research in Nursing & Health, 9, 279-287.
- Walorop, R. T., & Smith, S. P. (1986). An assessment tool for patient classification and nurse staffing in ambulatory care within a metropolitan area teaching hospital. Unpublished manuscript.