INTRODUCTION

Accurate definition and quantification of nursing workload is critical to the identification of required nursing resources. At the Massachusetts General Hospital (MGH), description of patients needs for nursing care as the basis for justifying and allocating nursing resources has been a priority for the past 22 years. In 1985, MGH began using the Medicus, now QuadraMed®, patient classification system as the methodology for quantifying patients' needs for nursing care.

The QuadraMed WinPFS™ Productivity and Benchmarking system provides comprehensive workload, staffing and productivity data critical to the effective management of nursing labor resources. The classification tool is a factor evaluation tool in which critical indicators of patient’s needs are used to categorize patients into one of six patient types. Patient acuity, the measure of need for nursing care in a 24-hour period, is quantified as the relative value unit for the patient type. Patients are classified daily according to their needs for nursing care rather than the amount of care that staff are able to provide. The daily workload for a given patient care unit is the sum of the acuity values for each of the patients on that unit. Thus, the workload index provides a weighted census, that is, a census factored for the patients' nursing care requirements. This eliminates the idea that “a patient is a patient”.

The system also provides a staffing framework that addresses hours of care for each unit of work (the Type 2 patient represents one unit of workload and the target hours reflect the care requirement for 24 hours). The WinPFS classification methodology provides a range of acceptable hours, within which the organization determines each unit's target. The Hours per Workload Index (HPWI) is the value that describes the targeted ratio of staffing hours per unit of workload, that is the labor required to complete one unit of workload. Its value represents the level that, together with other relevant factors, will optimize the relationship between resource consumption and quality of care. The HPWI serves as a basis for measuring productivity. In addition to patient type, there are several factors to consider when setting targets, these include, but are not limited to: care delivery modality, skill mix, minimum staffing requirements, staff experience and stability, unit size and physical layout, workload fluctuation and available support services.

Currently 37 inpatient care units classify patients using the QuadraMed WinPFS™ Productivity and Benchmarking system. Thirty-six units classify using the Patient Focused Solutions/ Workload Measurement (PFS / WM) Inpatient Methodology and one unit classifies using the PFS / WM Mental Health Methodology. The PFS / WM Inpatient Methodology is valid in all inpatient care areas: Medical / Surgical and all sub-specialties, Critical Care, Pediatrics, Obstetrics, Nursery and Rehabilitation. It also addresses the care needs of the short-stay patients because it is able to
measure workload in less than 24-hour increments. The PFS / WM Inpatient tool contains 30 discriminating critical indicators and the PFS / WM Mental Health tool consists of 29 indicators. Each indicator has an assigned weight and the sum of indicator weights determines the given patient’s type.

**Patient Classification Process**

At MGH registered nurses classify every patient assigned to an inpatient bed once each day based on their assessed needs for the 24-hour time period; this includes all admissions, transfers-in, transfers-out and discharges. The 24-hour time period begins at 7:00 AM and ends at 7:00 AM the following day. Classification is completed on-line and the WinPFS software can be accessed by authorized nurses from any Partners computer workstation. All patients present on a patient care unit are to be classified by 12:00 PM each day, all new admissions / transfers-in to the unit after the daily classification time must be classified once prior to the next 24-hour time period. All discharges / transfers-out are classified based on the patient’s needs from the beginning of the 24-hour time period until the time of discharge or transfer-out. Patients remain on the WinPFS Patient Selection Screen for two hours post discharge / transfer to allow the staff ample time to complete classification. (Appendix 1: Guidelines for Patient Classification)

To classify a patient, nurses select the indicators appropriate for the patient by clicking in the corresponding box on the Patient Selection Screen with the mouse. The process of classification takes about 30 seconds per patient. Once all the indicators are selected and saved the Patient Type appears on the Patient Selection Screen. When classifying, the nurse considers the patient’s current status and any documentation regarding the patient’s needs. The indicator definitions, available to nurses on-line within the software and on paper, are used to promote reliable application of the tool. Each indicator specifically describes the patient’s need for care and assessments and / or interventions. Some indicators are further defined with required frequency and duration of assessments and / or interventions, while others require that interventions are documented. The defining characteristics of the indicators make them critical and valid in their ability to predict patient care requirements and differentiate one patient from another.

Nursing directors and their designees are accountable for ensuring reliable data seven days a week. They are responsible for verifying the accuracy of patient classification and assuring that all patients are classified. Nursing directors, clinical nurse specialists and designated staff are authorized to edit classifications. The Edit Classification function is assigned within the security module of the WinPFS software and allows the user to view the current classifications and to make changes as needed.

In addition to patient classification data, WinPFS requires the entry of staffing data. Actual staff information is key to calculating Actual Hours per Workload Index (AHPWI). Therefore, along with classifying patients, a staffing form is completed and sent to Patient Care Services Information Systems each day. This form reports the number of
direct care provider staff in full time equivalents for the previous 24-hours and is completed by the unit nursing director or designee. Guidelines for completing the form are available on the reverse side of each form and address which personnel to include in the count and how to record partial shifts worked. (Appendix 2: Guidelines for Collection of Staffing Data) Staff in Patient Care Services Information Systems enter the daily staffing data into the WinPFS system.

**WINPFS SYSTEM SECURITY**

Patient confidentiality is protected through a password security system within the WinPFS system. Patient Care Services Information Systems staff are responsible for maintaining the security system and assigning system access to nurses. The initial level of access requires adding the WinPFS application to the nurse’s Partners computer user name. The security system within WinPFS is based on users, groups and functions. Users belong to groups and groups have permission to do certain functions. MGH has created specific user groups for each nurse role group and specific support role groups. Each employee in the Department of Nursing who has a need to use WinPFS is assigned to the appropriate group. For example, staff nurses are assigned to the Direct-Care RN group that allows them to classify patients while nursing directors are assigned to the Nursing Director group that allows them to classify patients, edit classifications and generate reports. In addition to assigning each nurse to a group, nurses are assigned to access only the unit(s) on which they work. The system creates an audit trail of users that allow the Patient Care Services Information Systems Project Assistant to review employee access. When employees terminate from MGH or move into role that does not require they use the system, access to WinPFS is disabled.

**PATIENT CLASSIFICATION STAFF NURSE EDUCATION**

The success of patient classification depends on the nurses who classify patients everyday. It is critical that the indicators are used according to the guidelines and applied consistently from one nurse to the next so the data are comparable from patient to patient, unit to unit and hospital to hospital. To ensure that every nurse is reliable in the use of the WinPFS acuity tool, training on the use of the indicators and successful completion of a competency test is mandatory. The Patient Care Services Information Systems Project Assistant is responsible for creating teaching materials and the education of staff.

Each nurse receives education in the following three areas: guidelines for classification, use of the indicators, and how to use the on-line system. There are two training options available – attendance at a two-hour class or completion of a self-directed packet; regardless of the method each staff nurse receives his / her own set of indicator definitions. Patient Care Services Information Systems nurses conduct training classes twice each month. All nurses must complete a competency test with the expectation that 21 out of 25 questions are answered correctly.
Nurses unsuccessful in completing the competency test require additional training and re-testing. (Appendix 3: Competency Test)

**AUDITING PATIENT CLASSIFICATION INPUT DATA**

To ensure that reliable data is being reported Patient Care Services Information Systems nurses audit patient type reliability, compliance with classification guidelines. Nurse auditors complete an inter-rater reliability test on a quarterly basis. Patient scenarios provided by QuadraMed, scenarios created by MGH, and real patients are used for testing. Each auditor must classify five out of six patients correctly.

WinPFS classification data is audited to ensure the reliability of the reported acuity and to identify and document areas of concern related to the application of the indicators. During the implementation of the new methodology in the Fall of 2001, each unit was audited weekly until a score of 100% was achieved for six consecutive weeks. Once this goal was attained, auditing moved to every two weeks for each unit. Based on revised QuadraMed guidelines, MGH now audits each unit monthly. If a unit obtains a score of less than 90% audits are done bi-monthly; monthly auditing is resumed when a score of 90% is once again achieved.

Auditing is done concurrently and is scheduled to occur on the shift on which the classification occurred. The day of the week is randomly selected to include any day including weekends. Six patients are selected at random for each audit; the name of the patient is recorded on the Classification Monitoring Report for tracking purposes. The auditor uses patient observation, patient interview, all nursing documentation for the current 24-hour period, and staff nurse interview to determine if the indicators selected by the nurse who classified the patient are appropriate. All indicator usage discrepancies are discussed with the staff nurse who classified the patient and the auditor revises the classification event. The auditor recalculates the score and determines if there is a change in patient type. Because the audit score is determined by Patient Type agreement it is possible to have indicator mismatch and still obtain a score of 100%. Patient classification audits provide another opportunity for Patient Care Services Information Systems nurses to educate unit-based staff nurses on the appropriate use of the indicators. (Attachment 4: Guidelines for Patient Classification Reliability Auditing)

Patient classification guidelines exist to allow for the capture of a representative census for each patient care unit. Compliance with classification guidelines is based on the number of patients classified by 12:00 PM compared to the number of patients who should be classified by 12:00 PM. This is reviewed at the same time patient type reliability is audited and reported on the Classification Monitoring Report.
A copy of each audit report is given to the nursing director. Quarterly summary reports of classification audits are distributed to the associate chiefs, directors of Patient Care Services Management Systems and Patient Care Services Information Systems, and the Nursing directors.

**SYSTEM MAINTENANCE**

Patient Care Services Information Systems is directly responsible for controlling access to the WinPFS system and the integrity of data generated by and stored in the system. The Patient Care Services Information Systems Project Assistant was accountable for the initial installation of the software after interface development, data preparation, table building, and extensive interface and software testing. Software upgrades undergo the same extensive interface and software testing in an electronic test environment prior to being placed in production.

General maintenance of the WinPFS data collection system requires on-going supervision to assure that the system is operational and that users are in compliance with the guidelines. The software is installed on an MGH server that is located in Partners HealthCare Information Systems (PHIS) and PHIS staff provide continuous monitoring of the server and data backups every 24 hours. On a daily basis, Patient Care Services Information Systems nurses monitor the WinPFS Patient Selection screens to ensure that they accurately reflect the unit’s census. Patients are added to and removed from the classification system through real-time HL_7 interface with Patcom, the hospital’s admission, discharge, and transfer system. On occasion, manual admission, discharge, and transfer updates are sometimes needed if discrepancies are noted. Patient Care Services Information Systems nurses manage all manual updates. PHIS Help Desk staff monitor that the interface between Patcom and WinPFS is running at all times. Should either the server or the interface fail at any time PHIS staff notify the Patient Care Services Information Systems Project Assistant by pager.

Nurses from Patient Care Services Information Systems review each unit’s classification data to assure that every patient present on the unit has been classified once each day. Phone calls to the unit or emails to the nursing director are made to prompt completion of daily classification as necessary. In addition, Nursing directors and designated staff on each unit are responsible to assure the accuracy of the daily patient classifications through a review within the specified time limits. Other maintenance activities that assure accuracy of system inputs include data auditing and competency testing of staff and nurse auditors (both activities were described above).

Patient Care Services Information Systems and Patient Care Services Financial Management Systems staff work collaboratively to assure that system outputs – acuity, workload, HPWI and actual staffing, fall within established targets and investigate variances. Additional system control measures include: assessment and revision of staffing and productivity targets, comparison of actual with budgeted staffing and productivity data, development of trend analysis reports, and comparison of MGH data with the QuadraMed National Benchmarking Database.
PATIENT CLASSIFICATION SYSTEM DATA STORAGE, OUTPUT AND UTILIZATION

The QuadraMed WinPFS™ Productivity and Benchmarking system has a comprehensive management reporting function. Reports can be generated on an as needed basis and can be accessed from any MGH workstation configured to process the patient classification data, and display and / or print the report. Authorization to generate reports by MGH staff is assigned to designate role groups within the security module of the WinPFS software; at this time Patient Care Services Financial Management Systems staff, Patient Care Services Information Systems staff and nursing directors are authorized to generate reports. The reports are designed for a single day of data or any date range defined by the user. Most of the standard reports developed within the WinPFS software allow the user to display data in a variety of ways, for example, staffing reports may be displayed in numbers of staff or hours; other reports may include data for one or many units. In addition, to generating standard reports, MGH creates custom reports using the Business Objects Query for Excel module on an as needed basis.

Although standard system reports have always been available, MGH identified that a critical success factor in maximizing the use of the data would be the ability to capture and store the *absolute raw data*, that is, all data elements at their most basic level. Therefore, in 1985 MGH implemented the system using individual forms for each patient, with the data scanned into a master database. Extensive interfaces were created both for existing systems and for new systems as they were developed. The ability to upload the data into major hospital systems and download the data into local computer-based spreadsheets gave us maximum flexibility in conducting sophisticated analyses and generating information for management decision-making.

The on-line patient classification system maintains this flexibility and greatly enhances both the ease of entering patient information and the accuracy and availability of workload information. Finally, we assured that all data from the system were stored permanently for easy retrieval as new analytical questions and approaches are identified.

Data from the classification system are merged with data from the hospitals Admitting/Discharge/Transfer (ADT) system and are used to complete a profile of each patient care unit. These profiles include, for each unit each day, the midnight, classification and length of stay adjusted census; number of patients by type; critical indicator utilization; and daily actual staffing data. In addition to providing daily and cumulative reports of unit activity and productivity, the data are entered into our cost accounting system and used as the basis for unit and departmental fiscal analysis.

Because every patient is classified every day, the system provides workload data not only for the patient care units but also for individual patients over the course of the hospital stay. Data from the system are uploaded to the
hospital's cost accounting system, Transition System, Inc (TSI), where a profile for every patient is created, stored and archived. Along with clinical and demographic information, the profile also contains the total and average workload for the patient's stay as well as the acuity for each day of the stay. It is also possible to conduct extensive analysis of patient populations identified by different parameters (e.g., DRG, medical specialty, age, length of stay), incorporating patient acuity and needs for nursing care into the analysis.

Since the data are stored at the absolute raw data and interface with other known clinical information, we are able to predict acuity in anticipation of a projected length of stay. As the data are stored by type and care unit, we analyze the data and develop acuity / length of stay models that assist in projecting workload when there is an anticipated decrease in length of stay for a particular clinical specialty. Because we have explained the classification system, illustrated the acuity / length of stay relationship, and demonstrated the reliability of the data, the budget projections that incorporate those relationships are viewed as credible as we negotiate budgets.

MGH participates in the QuadraMed National Benchmarking Database, a service that annually provides us with comparative nationwide data from academic medical centers of similar size. In addition, on a fee-for-service basis, QuadraMed provides us with an electronic data file that contains census, acuity, workload, HPWI and percent RN data from academic centers of greater than 500 beds. These data are graphed for use by senior management in the development of the budget. MGH frequently responds to request from individual hospitals for either benchmarking data or consultation on how MGH uses the classification data.

The system has thus become the basis for a comprehensive management information structure that includes such approaches as patient profiling, productivity analysis, trending and forecasting, variance analysis and unit profile comparison and can be easily adapted to respond to the changing information needs of the organization.

REFERENCES

APPENDIX 1

MASSACHUSETTS GENERAL HOSPITAL
PATIENT CARE SERVICES

TITLE: GUIDELINES FOR PATIENT CLASSIFICATION

PATIENTS WHO SHOULD BE CLASSIFIED AND CLASSIFICATION TIME

1. Every patient assigned to an inpatient bed, regardless of ADT (admission / discharge / transfer) status, is to be classified once per day based on their assessed needs for the 24-hour time period from 7:00 AM to 7:00 AM.

2. Classification is to be completed between 7:00 AM and 12:00 PM each day.

3. All new admissions / transfers into a patient care unit after the daily classification time must be classified once prior to the beginning of the next 24-hour time period (7:00 AM the following day). Classification is based upon the patient’s assessed needs at the time of admission / transfer until the beginning of the next 24-hour period.

4. Admissions / transfers-in should be classified within two (2) hours of arriving on the unit. The interface from Patcom (ADT system) will update the patient database in WinPFS in real-time (patients will appear on the Patient Selection Screen when they have been activated in the Patcom).

5. A patient discharged / transferred out of a patient care unit prior to classification time must be classified based upon the patient’s assessed needs from the beginning of the current 24-hour time period until the time of discharge or transfer out. Patient names will remain on the Patient Selection Screen for two (2) hours post discharge / transfer out.

CLASSIFICATION PROCESS

1. Classification of patients is to be done by a registered nurse (RN). RN requirements to classify patients include:
   a. Authorization in the WinPFS security system
   b. Completion of WinPFS methodology review
   c. Completion of competency test

2. The Patient Selection Screen will appear when a registered nurse accesses the WinPFS Acuity System. The “Last Classified” column is color-coded to indicate the classification status of each patient. The significance of the colors is as follows:
   - Yellow: it is time to reclassify the patient (date and time turns yellow every 24 hours at 7 AM)
   - Red: the patient has not been classified since admission / transfer into the unit
   - White: classification is completed and current (classification was completed after 7 AM of current 24 hour period)

3. The registered nurse selects only the indicators that apply to the patient. Use of the indicators is based on the patient’s need and not unit standards; all situations must be individually evaluated.

4. Indicator definitions and guidelines are utilized to promote reliable application of the tool. The indicator definition will be displayed in a dialogue box when a user hovers over an indicator with the mouse.
5. The nurse manager or designee should review accuracy and completeness of classification.

6. The nurse manager or designee should review Patient Selection Screen to verify that all patients have been classified each day at 12:00 Noon.

Approved: Department of Nursing, August 2006
Reviewed and Approved: Patient Care Services, Department of Nursing
Along with classifying patients, the daily staffing form must be completed and sent to Patient Care Services Information Services each day. Actual staff information is key to calculating actual hours per workload index (AHPWI), therefore, it is critical that all hours are collected and recorded accurately.

**ACTUAL STAFFING**

1. Actual staffing is the number of nursing personnel who actually provided direct care for patients on the unit.

   The personnel included in actual staffing are:
   - Resource Nurses
   - RNs (If RN functions as Observer count as RN)
   - Patient Care Associates (If PCA functions as Observer count as PCA)
     - Observers (Non-Department of Nursing Observer, e.g. Bulfinch Sitter)
     - Orientees according to guidelines (see Figure 3)

   The personnel to be excluded in actual staffing are:
   - Nursing Directors or RN functioning in the vacancy of a Nursing Director
   - Clinical Nurse Specialists (unless working as staff)
   - Nurse Practitioners (unless working as staff)
   - Private Duty Registered Nurses

2. The nursing director or designee will record the number of direct care provider staff in Full Time Equivalent positions (FTEs). This information is collected and recorded retrospectively by job title for the six defined four-hour shifts displayed on the Actual Staffing Record form Part One. See Figure 1.

3. Direct care hours other than the four-hour defined shifts are entered in Part Two of the Actual Staffing Record form. The start time and stop time associated with the direct patient care is entered. See Figure 2.
Figure 1

**Part One: Actual Staffing Record**

**ENTER THE NUMBER OF STAFF WHO PROVIDED DIRECT PATIENT CARE YESTERDAY**

<table>
<thead>
<tr>
<th>Shift</th>
<th>Direct Care RNs</th>
<th>Direct Care RNs in Orientation</th>
<th>DIRECT CARE NONRN (PCA)</th>
<th>DIRECT CARE NONRN (PCA) IN ORIENTATION</th>
<th>Observer (a.k.a. Sitter)</th>
</tr>
</thead>
<tbody>
<tr>
<td>7 A – 11 A</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11 A – 3 P</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 P – 7 P</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7 P – 11 P</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11 P – 3 A</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 A – 7 A</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Shift start and stop times are different for Blake 11 shifts.

Figure 2

**Part Two: Actual Staffing Record**

**ENTER THE START AND END TIMES FOR STAFF WHO PROVIDED DIRECT PATIENT CARE FOR TIMES OTHER THAN THE 4-HOUR SHIFTS LISTED IN PART ONE**

**Direct Time for Recording Partial Shifts for Yesterday**

<table>
<thead>
<tr>
<th>JOB TITLE (RN OR PCA)</th>
<th>START TIME</th>
<th>END TIME</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Figure 3

**Counting Orientees in Staffing Numbers**

<table>
<thead>
<tr>
<th></th>
<th>WEEK OF EMPLOYMENT</th>
<th>ENTER IN COLUMN LABELED</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct Care RN</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Med / Surg - Experienced</td>
<td>1 – 6</td>
<td>Direct Care RNs Orientation</td>
</tr>
<tr>
<td></td>
<td>7 +</td>
<td>Direct Care RNs</td>
</tr>
<tr>
<td>Direct Care RN</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Med / Surg – New Graduate</td>
<td>1 - 12</td>
<td>Direct Care RNs Orientation</td>
</tr>
<tr>
<td></td>
<td>13 +</td>
<td>Direct Care RNs</td>
</tr>
<tr>
<td>Direct Care RN</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Critical Care – Experienced RN</td>
<td>1 – 8</td>
<td>Direct Care RNs Orientation</td>
</tr>
<tr>
<td></td>
<td>9 +</td>
<td>Direct Care RNs</td>
</tr>
<tr>
<td>Direct Care RN</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Critical Care - New Graduate</td>
<td>1 - 26</td>
<td>Direct Care RNs Orientation</td>
</tr>
<tr>
<td></td>
<td>27 +</td>
<td>Direct Care RNs</td>
</tr>
<tr>
<td>Direct Care Non-RN</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(e.g. PCA)</td>
<td>1</td>
<td>DIRECT CARE NONRN (PCA) Orientation</td>
</tr>
<tr>
<td></td>
<td>2+</td>
<td>DIRECT CARE NONRN (PCA)</td>
</tr>
</tbody>
</table>

If orientation continues beyond the above specifications, including an isolated shift(s), the direct care provider is to be counted in the actual staffing numbers.

Approved: Department of Nursing, June 2007.
Reviewed and Approved: Patient Care Services, Department of Nursing
Appendix 3

Massachusetts General Hospital
Patient Care Services – Department of Nursing

Patient Classification New Methodology Competency Test

1. Read the WinPFS Patient Classification Indicator Definitions.
2. Use answer sheet found at the end of this packet to record your answers.
3. Return completed answer sheet to the nursing director or unit-based expert.

It is important to read the situations as presented, please do not make any assumptions about additional assessments or interventions you would do in a live clinical situation.

1. You are caring for a patient who just returned from an angiogram. You will be assessing the right groin puncture site every 15 minutes x 4, every 30 minutes x 2 and every hour x 2. Select the appropriate indicator, if any.
   a) Wound/Injury Management
   b) Wound/Injury Management – Complex
   c) Wound/Injury Management – Extensive and Complex
   d) None of the above

2. You are caring for a patient who is sleepy but arousable as a result of general anesthesia she had for a femoral-popliteal bypass that was done today. Select the appropriate indicator(s), if any.
   a) Communication Support
   b) Cognitive Support
   c) a and b
   d) None of the above

3. You are caring for a patient who is recovering from septic shock. The patient has a Swan-Ganz catheter (pulmonary artery line) and an arterial line, and you are assessing the patient’s (pulmonary artery wedge pressure) PAWP, CVP and arterial BP every hour. Select the appropriate indicator(s), if any.
   a) Cardiovascular/Neurological Management
   b) Cardiovascular/Neurological Management – Complex
   c) Cardiovascular/Neurological Management – Intensive
   d) None of the above

4. Your patient is on oxygen at 4L/minute via nasal cannula and requires respiratory assessment and NT suctioning every two to three hours. Select the appropriate indicator(s), if any
   a) Pulmonary Management
   b) Pulmonary Management – Complex
   c) Pulmonary Management – Intensive
   d) None of the above
5. Your patient is being discharged today. The case manager made arrangements for a visiting nurse to see your patient three times per week after discharge. You fax a completed referral form to the VNA, call report to the intake nurse at the VNA and review the post hospital plans for VNA services with the patient. Select the appropriate indicator(s), if any.
   a) Information/Instructional Needs
   b) Education Needs – Life Style Change
   c) Extensive Coordination
   d) None of the above

6. You are caring for a patient who is undergoing chemotherapy and has a history of oral lesions following chemo. You will be providing good oral hygiene every two hours in an effort to prevent oral lesions from developing and this is documented in the patient’s plan of care. Select the appropriate indicator(s), if any.
   a) Wound/Injury Management
   b) Preventive Skin Care
   c) a and b
   d) None of the above

7. You are caring for a patient who has fingerstick blood glucose checks with sliding scale insulin before meals (ac) and at bedtime (hs). Select the appropriate indicator(s), if any.
   a) Medication Management
   b) Medication Management – Complex
   c) Medication Management – Continuous Assessment
   d) None of the above

8. You are caring for an intubated patient who is alert and oriented. Select the appropriate indicator(s), if any.
   a) Communication Support
   b) Cognitive Support
   c) a and b
   d) None of the above

9. You are caring for a patient who has been in the hospital for two months because of multiple complications following a small bowel resection. The patient has a flat affect, barely speaks and needs extended encouragement to engage in any activities. The patient has had a psych consult and has been placed on Paxil for clinical depression. You will be following the care plan that provides a consistent approach to encourage the patient’s participation in her care. Select the appropriate indicator(s), if any.
   a) Communication Support
   b) Cognitive Support
   c) Coping Support
   d) None of the above

10. You are caring for a three year old who lost consciousness for two minutes after falling down a flight of stairs. You will be doing neurological assessments on the child every two hours for eight hours and then every four hours for sixteen hours. Select the appropriate indicator(s), if any.
    a) Cardiovascular/Neurological Management
    b) Cardiovascular/Neurological Management – Complex
    c) Cardiovascular/Neurological Management – Intensive
    d) None of the above
11. You are caring for a patient who has continuous IV fluids of D5LR infusing at 40cc/hour along with continuous TPN and Lipids. The patient’s I&O is being assessed every two hours. Select the appropriate indicator(s), if any.

a) Fluid Management
b) Fluid Management – Intermediate
c) Fluid Management – Complex
d) None of the above

12. You are caring for a patient who just arrived from the Recovery Room following a thyroidectomy. You will be assessing the patient’s BP, P, R and T every 15 minutes x 4, every 30 minutes x 4 and every hour x 4 as part of her routine post-op care. Select the appropriate indicator(s) if any.

1) Cardiovascular/Neurological Management - Complex
2) Pulmonary Management – Complex
3) Cardiovascular/Neurological Management – Intensive
4) Pulmonary Management – Intensive

a) 1 and 2
b) 1 and 4
c) 2 and 3
d) 3 and 4
e) None of the above

13. You are preparing your patient for surgery under general anesthesia. Your patient expresses some anxiety about having surgery and anesthesia. The level of anxiety expressed is the level you routinely see in similar situations. You provide the same level of reassurance to the patient that you routinely provide in this type of situation. Select the appropriate indicator(s), in any.

a) Communication Support
b) Cognitive Support
c) Coping Support
d) None of the above

14. You are caring for a patient with a continuous IV infusion of D5NS at 125cc/hour. The patient’s I&O will be assessed every eight hours. Select the appropriate indicator(s), if any.

a) Fluid Management
b) Fluid Management – Intermediate
c) Fluid Management – Complex
d) None of the above

15. You are caring for a patient in CHF who has been stable on an infusion of renal dose dopamine. The patient’s central line has become occluded, and the Dopamine infusion is being infused peripherally until the physicians can insert a new central line. The peripheral Dopamine infusion will continue for at least four hours, and the IV site will be checked every hour during the peripheral infusion. Select the appropriate indicator(s), if any.

a) Medication Management
b) Medication Management – Complex
c) Medication Management – Continuous Assessment
d) None of the above
16. You are caring for a patient with a CVA who must be monitored and cued through swallowing during mealtime due to a risk of aspiration. The patient is expected to eat without aspiration risk at some point-in-time post-discharge. You are following a written plan of care developed by the patient’s speech therapist in relation to swallow precautions. Which ADL indicator should you select?

a) ADL – Self/Minimal Care  
b) ADL – Partial Care  
c) ADL – Complete  
d) ADL – Rehabilitative

17. Your are caring for a patient s/p abdominal surgery. The wound requires wet-to-dry packing changed every six hours. The packing takes approximately 10 minutes. Select the appropriate indicator(s), if any.

a) Wound/Injury Management  
b) Wound/Injury Management – Complex  
c) Wound/Injury Management – Extensive and Complex  
d) None of the above

18. You are caring for a patient who is pleasant and cooperative during the day and early evening while his wife is present, but very confused after 8:00 p.m. due to Sundowner’s Syndrome. Because of his confusion, the patient has a sitter at his bedside from 7:00 p.m. to 7:30 a.m. Select the appropriate indicator(s), if any.

1) Cognitive Support  
2) Close Observation  
3) Close Observation 1:1

a) 1 and 2  
b) 1 and 3

19. You are caring for a patient with mental status changes due to cerebral arterial vasospasm after a subarachnoid hemorrhage. You will be measuring the patient’s arterial blood pressure and intracranial pressure every fifteen minutes for the next three hours. Select the appropriate indicator(s), if any.

a) Cardiovascular/Neurological Management  
b) Cardiovascular/Neurological Management – Complex  
c) Cardiovascular/Neurological Management – Intensive  
d) None of the above

20. You are caring for a patient who can wash her face, arms and chest and who receives continuous tube feedings via gastrostomy tube. Which ADL indicator should you select?

a) ADL – Self/Minimal Care  
b) ADL – Partial Care  
c) ADL – Complete  
d) ADL – Rehabilitative
21. You are caring for a patient whose respiratory status has been stabilized after she was placed on CPAP. The patient’s O₂ saturation is being assessed and ABGs are being drawn from her arterial line every hour for the next three hours. Select the appropriate indicator(s), if any.

   a) Pulmonary Management
   b) Pulmonary Management – Complex
   c) Pulmonary Management – Intensive
   d) None of the above

22. You are caring for a patient who is one day post-op from a CABG. The patient will receive two units of PRBCs over two hours each due to a low HCT, slightly decreased SBP and decreased urine output. The patient’s urine output is to be assessed every two hours for the next eight hours. Select the appropriate indicator(s), if any.

   a) Fluid Management
   b) Fluid Management – Intermediate
   c) Fluid Management – Complex
   d) None of the above

23. You are caring for a patient who is three days post TURP. The patient’s continuous bladder irrigation has been discontinued, but he still has a foley catheter in place. You are assessing the patient’s urine for hematuria and / or clots. Select the appropriate indicator(s), if any.

   a) Wound/Injury Management
   b) Wound/Injury Management – Complex
   c) Wound/Injury Management – Extensive and Complex
   d) None of the above

24. Your patient had a pacemaker inserted today. He has some incisional discomfort and has Tylenol #3, one to two tablets ordered p.o. every three to four hours prn pain. The patient’s need for pain medication is being assessed every three hours. Select the appropriate indicator(s), if any.

   a) Medication Management
   b) Medication Management – Complex
   c) Medication Management – Continuous Assessment
   d) None of the above

25. You are caring for a 22 year old patient admitted with severe abdominal pain. She is hemodynamically stable, afebrile, her stool is guaiac negative and the pain has subsided. She is scheduled for an abdominal CT today and will be discharged if it is negative. Select the appropriate indicator(s), if any.

   a) Information / Instructional Needs
   b) Educational Needs – Life Style Changes
   c) a and b
   d) None of the above

Version 2
GUIDELINES FOR PATIENT CLASSIFICATION RELIABILITY AUDITING

Auditing of the WinPFS Patient Classification data is performed to ensure the reliability of the reported acuity and to identify and document areas of concern related to the application of the indicators.

Objective

All patient care units that classify patients using the WinPFS Patient Classification tool will have reliable patient acuity data.

Plan

1. Nurse auditors will successfully complete a patient classification inter-rater reliability test administered by Patient Care Services Information Systems on a quarterly basis. Scenarios provided by QuadraMed, scenarios created by Massachusetts General Hospital or real patients may be used for testing purposes.

2. During implementation of a new or updated WinPFS Patient Classification methodology, weekly auditing will be conducted until the unit has maintained a 100% reliability for 6 consecutive weeks; reliability auditing will begin on Week 2 of each phase of the rollout.

3. Auditing will take place monthly after 6 consecutive weeks of reliability is achieved. If a reliability score is less than 90%, auditing will be done bi-monthly until the score is greater than 90% then monthly auditing will resume.

4. The day of the week and the shift the audit will occur will be randomly selected to include any shift and any day of the week.

5. Six patients will be randomly selected for each auditing session. The name of the patient is recorded on the Classification Monitoring Report for tracking purposes.

6. Data sources used during auditing include: the patient (observation and interview), all nursing documentation records for the current twenty-four hour period and the staff responsible for providing the patient’s care.

7. Completed audit reports will be sent to the Patient Classification Coordinator in Patient Care Services Information Systems. A copy of the audit report will be given to the Nurse Manager.

8. Quarterly reliability reports will be distributed to the Associate Chiefs, Directors and Nurse Managers.

Patient Care Services Information Systems, August 2006.