American University of Armenia
Center for Health Services Research and Development

Nork Marash Medical Center

A FOLLOW-UP SURVEY OF ADHERENCE TO INTERNATIONAL HOSPITAL STANDARDS AT NORK-MARASH MEDICAL CENTER

SUMMARY REPORT

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Contributing Authors

Zaruhi Bakalyan
Quality Assurance Subproject Coordinator
AUA/NMMC Project, CHSR

Lusine Abrahamyan
Quality Assurance Subproject Coordinator
AUA/NMMC Project, CHSR

Anahit Demirchyan
AUA/NMMC Project Coordinator
Senior Program Manager, CHSR

Ryan Nahapetian
Project Intern
AUA/NMMC Project, CHSR

Michael Thompson
Director, CHSR

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LIST OF ABBREVIATIONS

ACC	Access to and continuity of care (function)
ANP	American University of Armenia – Nork Marash Medical Center Project
AOP	Assessment of patients (function)
AUA	American University of Armenia
CABG	Coronary arterial bypass graft
CHSR	Center for Health Services Research
CIS	Commonwealth of Independent States
COP	Care of patients (function)
DS	Discharge summary
EKG	Electrocardiogram
FMS	Facility management and safety (function)
JCAHO	Joint Commission on Accreditation of Healthcare Organizations
GLD	Governance, leadership and direction (function)
ICP	Infection control program
ICU	Intensive care unit
MOH	Ministry of Health
MOI	Management of information (function)
NIS	Newly Independent States
NMMC	Nork Marash Medical Center
OR	Operating room
PCI	Prevention and control of infections (function)
PFE	Patient and family education (function)
PFR	Patient and family rights (function)
QA	Quality assurance
QI	Quality improvement
QMI	Quality management and improvement (function)
RRC	Republican Radiology Center
SEF	Structured encounter form
SES	Sanitary-Epidemiology Station
SQE	Staff qualifications and education (function)

EXECUTIVE SUMMARY

Introduction

This report presents the results of the follow-up survey on adherence of Nork-Marash Medical Center (NMMC) to the international hospital standards set by the Joint Commission on Accreditation of Healthcare Organizations (JCAHO). The baseline survey was conducted during 2000 by the Center for Health Services Research (CHSR) at the American University of Armenia (AUA). The goal of the follow-up survey was to reevaluate the compliance of NMMC with the Joint Commission International Accreditation Standards for Hospitals and to assess the changes that took place since the baseline survey. During the period between the first and the second assessments, a collaborative project between AUA and NMMC was implemented. Thus, the survey may indirectly assess also the results of the AUA/NMMC Project (ANP).

Methods

Eleven hospital functions of the NMMC were evaluated in terms of their compliance with the standards for hospital care and management outlined by the "Joint Commission International Accreditation Standards for Hospitals". ANP team conducted the assessment survey. Data collection techniques used in the follow-up survey were similar to the one's used during the initial assessment: on-site observations and extensive interviews with the NMMC personnel. For a given function, the measurable elements (ME) of the standards selected during the initial survey were reassessed. Each of the selected MEs was then assigned an evaluation score (1-4 scores meaning correspondingly: standard not met, standard met minimally, standard met partially, standard met satisfactorily). The assigned evaluation scores represent the best judgment of the ANP and NMMC team but they have a considerable subjective component.

Results

According to the results of the reevaluation, some of the NMMC functions improved more notably: Patient and Family Rights function improved significantly as the Patient and Family Rights policies and procedures were developed, approved, and implemented. The Prevention and Control of Infections function improved with the establishment and performance of the Infection Control Committee. The Governance and Leadership function improved with the establishment of the Hospital and Medical boards. Some of Patient-centered functions like Access and Continuity of Care, Assessment of Patient, Care of Patient remained almost unchanged. However, they scored higher by the initial assessment as compared with the other functions.

The main positive changes that occurred at NMMC during 2000-2005 were the following:

- Establishment of managerial bodies at NMMC: Hospital board and Medical board, which resulted in shift of decision-making from individual to collective level and better coordinated relationship between managerial and clinical services. Besides, the managerial bodies directly carry the responsibility for the quality of care at NMMC on clinical and institutional level.
- Development and implementation of a number of polices and procedures (Hospital board policy and procedures, Medical board policy and procedures, Patient and Family Rights policy and procedures, Medical and other data use/provision policy and procedures, Hiring policy and procedures, Firing policy and procedure, Employee regulations) with active involvement of ANP project coordinators. The active discussion of policies and procedures and further approval and implementation became possible with the establishment of Hospital and Medical boards that carry also the responsibility for internal policies' and procedures' development and implementation.
- Improvement in overall data management: several new paper and computerized databases were created in different departments/services. Structured Encounter Forms (SEFs) were developed by ANP coordinators for NMMC clinics. Several computerized databases were created in different

departments (accountancy, admission, blood bank, human resource, wound, EUROscore, appointment databases, etc) that improved the usability and value of the collected data.
- Implementation of several monitoring activities by ANP coordinators to evaluate indicators of quality of care in different areas of the institution.

The main limitations encountered by the survey were the following:
- Lack of documentation for different functions of the hospital was reported by the initial survey. Although an improvement was noted in that several policies/procedures were developed, they regulate limited number of areas. The center still needs to document or to develop several policies/procedures for various areas, to establish criteria for its daily functions. Hopefully, with establishment of the managerial bodies the center will take necessary steps to close this gap gradually.
- The "Quality improvement philosophy" is intruding more and more into daily life and staff mentality at the Center. As a result of ANP project efforts along with NMMC efforts, several indicators of quality of care were monitored during the last 4 years. Some of the findings were used to implement necessary measures to make improvements in the recommended areas. However, a successful mechanism for continuous quality monitoring and improvement was not yet established at NMMC.
- As it was mentioned above, the data collection activities and overall value and quality of the collected data have improved during the last years significantly. However, successive steps should be made to use the collected data more effectively, to improve the quality of the collected data, and to establish mechanisms for continuous monitoring of the latter.

Conclusion

Generally, patient-centered functions were the ones less changed as they had higher compliance with the standards at the time of the initial assessment. The majority of the management-centered functions improved more extensively as they were underdeveloped and grew more rapidly than the well-developed clinical areas. In some extent, this could be explained by the fact that the baseline survey recommendations were taken as a guide for clinical and managerial bodies at NMMC to prioritize and target mainly those areas that were not compliant with the international hospital standards.

INTRODUCTION

Purpose of the report

During 2000, a team from the American University of Armenia (AUA), with the joint efforts of the Nork Marash Medical Center (NMMC) conducted a comprehensive survey to assess the adherence of the NMMC to International Hospital Standards set by the Joint Commission on Accreditation of Healthcare Organizations (JCAHO) (1,2). Thereafter, a multi-facet Quality Assurance Project (ANP) was launched at the NMMC as a collaborative effort of the latter and the AUA Center for Health Services Research and Development. The baseline survey on compliance of the hospital with the selected Joint Commission International Accreditation (JCIA) standards served as a comprehensive resource of information for this effort and provided a convenient structure for the program. Thus far ANP implemented different quality assurance and related activities at the center. The main purpose of the present work was conducting a follow-up survey to evaluate the changes that took place at NMMC during the years of the ANP implementation. The results of the re-evaluation could be used for not only evaluating the state of current situation and indicating future directions for continuous quality improvement at the Center, but also for assessing the effectiveness of activities undertaken in the scope of the ANP project.

Basis for assessment

The NMMC functions were evaluated based on international standards for hospital care and management that are outlined in the first edition of the Joint Commission International Accreditation Standards for Hospitals ("Manual"; Joint Commission International Accreditation, 2000). The Joint Commission International Accreditation is a division of the international subsidiary of the Joint Commission on Accreditation of Healthcare Organizations (JCAHO). JCAHO is an American organization that is a leader in providing accreditation to healthcare organizations in the United States.

Based on the Manual, different hospital areas are divided into two main categories (patient-centered functions and management-centered functions). The various hospital aspects are divided into following 11 functions:

Patient-centered functions

- ACC (Access to and continuity of care)
- AOP (Assessment of patients)
- COP (Care of patients)
- PFE (Patient and family education)
- PFR (Patient and family rights)

Management-centered functions

- FMS (Facility management and safety)
- GLD (Governance, leadership and direction)
- MOI (Management of information)
- PCI (Prevention and control of infections)
- QMI (Quality management and improvement)
- SQE (Staff qualifications and education)

Each function involves a large number of standards and each standard - one or more measurable elements (MEs) described in the Manual along with intent statement for each standard.

Assessment technique

The follow-up survey has been conducted by ANP coordinators. Qualitative research methods were used to assess different functions of the hospital. Generally, excessive interviews were conducted with key

informant staff of NMMC. Observations, documentation and research paper review were carried out in addition to interviews.

Report format

The Report design of the follow-up survey is similar to the baseline assessment report. The standards and measurable elements (MEs) assessed by the follow-up survey were the same as selected during the initial assessment to insure the consistency of evaluation and to make apparent the changes if any.

The format of the follow-up survey report is slightly different from the initial assessment report. The former lacks detailed evaluation of each standard (only the conclusion is available as in the baseline report). Rather it is more focused on the changes that occurred after the baseline survey: for each measured standard, there are additional sections in the follow-up report where the changes and areas for improvement/recommendations are noted. Aside from textual evaluation of MEs, each of the MEs is then assigned an evaluation score (the baseline assessment scores of MEs are also available to compare the changes in scores).

The same scoring system as in the baseline survey is used to evaluate MEs: 1 ("standard not met"), 2 ("standard met minimally"), 3 ("standard met partially"), or 4 ("standard met satisfactorily"). The assigned evaluation scores represent the best judgment of the ANP and NMMC team. These scores, however, have an admitted subjective component. It is important to mention that the team of the follow-up assessment sometimes was disagree with the scores assigned at the baseline evaluation. Generally, a tendency was noted by the follow-up evaluators of assigning higher than real scores at the baseline survey. In order to indicate the positive changes that occurred in some measured areas, the higher than perceived baseline scores were marked in this report with asterisks that show a probable exaggeration in scoring.

This evaluation could be considered as "internal" (i.e., self-assessment by NMMC staff), because ANP team was well integrated in the NMMC staff during this multi-year project and, based on the interviews with NMMC staff, generally expressed their point of views in the report. Thus the survey carries all the limitations that are inherent to self-evaluations. An outside evaluation would tend to be more objective. It is important also to mention that more objectivity could be reached if evaluation of each function or a subgroup of functions were conducted by experts in that particular area. Since the expertise of the ANP coordinators was limited, their evaluation was mainly based on NMMC staff perceptions. While the great majority of assessments were based on the data obtained from interviews with NMMC personnel, some of the evaluations were based on the data from research or observations conducted by ANP team during the last four years.

The Report could serve as a potential source for NMMC managerial bodies to set priorities and plan/shape interventions and strategies for further improvement. The Report would be a valuable source in case if NMMC applies to obtain JCAHO accreditation.

AUA/NMMC PROJECT

The initial assessment report presents information on the NMMC, describing the setting where the assessment was conducted. The provided information was more than enough and there is no much to add after the follow-up evaluation aside from information that is already involved in the evaluation text. Thus, the follow-up report would present the AUA/NMMC Project (ANP).

ANP was formally established in March 1, 2000. The initial phase of the project (2000-2001) was focused on assessing/evaluating different aspects of the NMMC functioning. This phase included the initial assessment of the degree to which international standards of hospital care and management are met at NMMC, the feasibility of establishing a patient follow-up center at NMMC, and a needs assessment for business administration and marketing at NMMC. The recommendations obtained from these activities assisted to plan subsequent activities to support and enhance the effort of NMMC leadership and staff to convert NMMC into a modern hospital emphasizing quality assurance.

The second phase of ANP was mainly focused to introduce a quality assurance system at NMMC, to address almost every function of the hospital. The descriptions of the main subprojects (Internship, Quality Assurance, Patient Follow-up Center Establishment, Marketing, Business Administration, Establishment of Internationally Recognized IRB for Invasive Interventions, and Development of a Combined Surgical and Catheterization Database) functioning during the 4 years of the ANP implementation phase are presented below.

Internship project for cardiologists from NIS countries

The Internship project provided 4-month internship either in children or adult cardiology to cardiologists from NIS countries. The primary goal of the Internship project was to expand the network of cardiologists who are acquainted with NMMC and who may refer cardiac surgical patients that cannot be treated at their facilities to NMMC, as well as to improve the quality of cardiology in the home countries of interns. Eleven cardiologists from different NIS countries attended the internship program and made noticeable progress in their studies. All the interns were uniform in their praise of the project. The program started in March 2000 and ended in February 2004 because of several difficulties encountered during the project implementation (connected mainly with recruiting appropriate candidates and receiving patient referrals from the institutions of former interns). In addition, the 4-month duration of the internship was considered insufficient to adequately prepare specialists in current cardiology, meaning that the second aim of the project (improving the quality of cardiology in the NIS) could not be fully met.

Quality assurance: Improvement of medical care and management at NMMC

The Quality assurance project aimed to establish a Quality Assurance System at NMMC to reach sustainable improvement in all functional areas of the center and to improve patient health outcomes. The successful undertakings of the project were the following:

- Establishment of the two governing bodies at NMMC: the Hospital Board and the Medical Board;
- Development of numerous policies and procedures to guide different aspects of NMMC functioning;
- Completion of numerous assessment surveys/studies to identify deficiencies and guide improvements;
- Monitoring of several quality and performance indicators to introduce the culture of quality assurance at NMMC;
- Initiation of staff educational activities involving both nurses and physicians;
- Development of standard operating procedures for all lab tests conducted at NMMC;

- Introduction of structured medical record forms for in- and out- patient departments;
- Creation of a series of educational booklets for patients, etc.

The Quality assurance project was viewed as the central subproject from the both sides of the partnership.

Establishment of mechanism to follow surgical patients over time at NMMC

The subproject aimed to create all the prerequisites to establish a Patient Follow-up Center (PFUC) at NMMC. The project reached its goal through the following successive key steps:

- Conduction of a feasibility study to identify a cost-effective, reliable approach to operating the PFUC;
- Development and validation of the PFUC instruments (a specific questionnaire for post-surgical patients of NMMC and the Armenian official validated translation of SF-36, a quality of life instrument);
- Development of the software needed to automate much of the PFUC operations.

However, the implementation of patient follow-up center was postponed by NMMC until the other databases will be improved to satisfactory level to support the data collection by PFUC.

Development and implementation of marketing plan at NMMC

This project aimed to implement recommendations from the "Report on Marketing Issues at NMMC" developed by the AUA Center for Business Research and Development during the first phase of the collaborative project. Owing to Marketing project NMMC was widely advertised through different radio channels and inter-NIS newspapers in Armenia and Russia. Series of health educational and informational articles were periodically published in the "Azg" newspaper under the heading of NMMC. All significant events at NMMC were widely publicized through different mass media means; a brochure introducing NMMC was developed in two languages (English and Russian) and published. Patient satisfaction surveys were periodically conducted at NMMC and analyzed. A monitoring system was introduced to monitor the referrals of patients from NIS countries through a structured questionnaire and the data was entered into the database. The project was terminated in 2004, because NMMC gradually assumed the responsibility (financial and administrative) for its own marketing activities.

Improvement of systems of business administration at NMMC

The project was aimed to help NMMC leadership to establish an inventory control system, a computer-based accounting program, and a patient-tracking system at the Center. During the period of project implementation the following tasks were completed:

- Medical inventory management system was developed and introduced;
- The paper-based system of the registration of acquisition, storing and distribution of drugs from pharmacy to the departments was transferred into a computerized model;
- A shift was made from suppliers located in USA to those located in Armenia, CIS or Europe;
- The real operating cost of two main types of operations (CABG and valve surgeries) was calculated;
- Indicators (ratios) for financial statements analysis were developed.

The project was stopped at the end of 2002, because NMMC undertook the responsibility of implementing the project on its own through creating a new position of financial advisor and hiring an advisor with western education.

Establishment of an Internationally Recognized Institutional Review Board (IRB) for Clinical Interventions

This project was aimed to plan and organize an IRB responsible for both invasive and non-invasive interventions. A consensus was reached between AUA IRB members, NMMC leadership, and OHRP (Office for Human Research Protection) officials to establish this body at AUA as its second IRB dealing with clinical trails and invasive research. The new IRB has been formally established and its establishment approved and recognized by OHRP. Both AUA faculty and NNMC staff were included in the list of the AUA second IRB board members. The IRB could provide ethical committee services not just to NMMC but other local healthcare and research institutions as needed. In parallel with these steps, an on-line course on ethical issues of research conduct was prepared in Armenian, Russian, and English languages. Several presentations on the topic of "Biomedical Research and Ethics: human subjects protection" were provided by the subproject coordinator to NMMC staff members, MPH students, and a broader audience with an aim to introduce the culture of research ethics in health care institutions of Armenia.

Development of a Combined Surgical and Catheterization Databases at NMMC

The aim of the project was to develop a combined database (surgical and catheterization databases) that would serve to improve the quality/accuracy of the data, to minimize discrepancies in redundant data entry, and to facilitate analysis/use of the datasets. The software for the combined surgical and catheterization databases has been developed by ANP programmer and NMMC staff. Currently it is in the phase of implementation at NMMC.

FUNCTION: ACCESS TO CARE AND CONTINUITY OF CARE (ACC)

Follow-up evaluation highlights

Patient screening is initiated at the first contact with a patient and the care is organized based on the screening results. The process of general admission, as well as admission of emergency patients is based on verbally established rules and regulations. The decision about the urgency of provision of care at NMMC is based on the estimation of patient's status. Patients/families receive information about the admission process, proposed treatment, expected results, and treatment-associated costs. Currently, patients receive educational brochures developed by the ANP coordinators. The brochures provide the needed information on care options, expected outcomes, primary/secondary prevention, etc. NMMC physicians determine patients' needs for intensive care, surgery, transfer, or discharge based on verbally established criteria. Each patient has his/her case-manager who is responsible for coordinating the patient care across different departments. Medical records also serve as a tool to share the patient information between departments. The record contains information on the reasons of admission, significant findings, diagnosis, conducted procedures, prescribed medications, and patient condition at the transfer. A policy was developed and approved by the Hospital board on provision and use of patient data both by the NMMC staff members and outside professionals/organizations.

The processes of patient discharge and referral have become more organized and patient/family concerns are considered in these processes. All patients/families are provided with comprehensive information on follow-up care, lifestyle issues, timetable of follow-up visits, as well as with discharge summary at the time of patient's discharge from NMMC. The summary contains brief information about the reasons for admission, significant findings, diagnosis, procedures performed, and the patient's status at discharge. A copy of the discharge summary is kept in the medical record. All transferred patients are provided with discharge summary and referral document. The reasons for transfer and the contacts of the receiving institution are noted in the medical record of the transferred patient.

Based on the follow-up evaluation the following recommendations are made:

- Advertise the center through mass media means on a regular basis;
- Develop policies/procedures to standardize the admission process of both planned and emergency patients;
- Develop written criteria for prioritizing patients with immediate needs;
- Set criteria for selecting screening and diagnostic procedures before admission;
- Develop written criteria for patient's entry to intensive care or specialized services, patient's transfer within the center, and patient's discharge.
- Establish a process of periodic review/update of the criteria and train staff to use those;
- Establish a patient rehabilitation department at the center;
- Develop structured discharge summary form to assure the completeness of the recorded information;
- Increase the cooperation of NMMC with other centers; increase the cooperation of NMMC staff with regional specialists and specialists from CIS countries for assuring the continuity of care after patient discharge;
- Establish a follow-up care center at NMMC to assure the continuity of care;
- Establish an ambulance service at NMMC.

Evaluation Score:

1 = Standard not met; **2** = Standard met minimally; **3** = Standard met partially; **4** = Standard met satisfactorily; **N/A** = Standard is not applicable to NMMC or cannot be measured from available information.

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ACCESS TO CARE AND CONTINUITY OF CARE (ACC)				
Standard #	**Standard**	**Measurable Element** (# of measurable element)	**Evaluation Score**	
			2000	**2005**
ACC.1	Patients have access to the health organization's services based on their identified health care needs and the organization's mission and resources.	(1) Screening is initiated at the point of first contact.	4	4
		(2) Based on screening, the patient is matched with the organization's mission and resources.	4	4
		(3) Information on services, hours of operation, and the process to obtain care are provided to agencies and referral sources in the community.	2	3
ACC.1.1	The organization has a process for admitting patients to the organization.	(1) Policies and procedures are used to standardize the admitting process.	3	3
		(3) The policies and procedures address admitting emergency patients.	3	3
		(4) Policies and procedures address holding patient for observations.	3	3
ACC.1.1.1	Patients with emergency or immediate needs are given priority for assessment and treatment.	(1) The organization has established criteria to prioritize patients with immediate needs.	3	3
		(2) Staff is trained to use criteria.	4	4
		(3) Patients are prioritized based on the urgency of their needs.	4	4
ACC.1.1.2	Patient needs for preventive, palliative, curative and rehabilitative services are prioritized based on the patient's condition at the time of entry to the organization.	(1) The screening assessment helps staff understand the type of preventive, palliative, curative and rehabilitative services needed by the patient.	4	4
		(2) The setting of care to meet these needs is appropriate.	N/A	N/A
ACC.1.2	At admission, the health care organization provides the following information to patient and appropriate family members or decision-makers: information on proposed care, the expected results of that care, and any expected cost to the patient for the care.	(1) There is a process to provide patient/family with information at admission.	4	4
		(2) The process includes information on the proposed care.	4	4
		(3) The process includes information on the expected results of care.	4	4
		(4) The process includes information on any expected costs to the patient or family.	4	4
		(5) Patients receive sufficient information to make knowledgeable decisions.	4	4

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ACCESS TO CARE AND CONTINUITY OF CARE (ACC)				
Standard #	**Standard**	**Measurable Element** (# of measurable element)	**Evaluation Score**	
			2000	**2005**
ACC.1.4	Diagnostic tests for determining patient needs are completed and used as appropriate to determine whether the patient should be admitted, transferred or refused.	(1) There is a process to provide the results of diagnostic test to those responsible for determining if patient is to be admitted, transferred or refused.	4	4
		(2) Criteria are used to determine which screening and diagnostic required before admission.	3	3
		(3) Patients are not admitted, transferred or refused before the test results are available.	N/A	N/A
ACC.1.5	Entry or transfer to units providing intensive or specialized services is determined by established criteria.	(1) The organization has established entry or transfer criteria for its intensive and specialized services.	2	2
		(3) Staff is trained to apply the criteria.	2	2
		(5) Patients who no longer meet the criteria are transferred or discharged.	3	3
ACC.2	The organization designs and carries out processes to provide continuity of patient care services in the organization and coordination among health care professionals.	(1) The leaders of services and settings design and implement processes that support continuity and coordination of care.	4	4
		(2) Established criteria or policies determine the appropriateness of transfer within the organization.	3	3
		(4) Care is coordinated between emergency services and inpatient admission.	4	4
		(5) Care is coordinated between diagnostic and treatment services.	4	4
		(6) Care is coordinated between surgical and non-surgical services.	4	4
		(8) Individuals responsible for coordination are identified.	3	4
ACC.2.1	During all phases of care, there is a qualified individual identified as responsible for the patient's care.	(1) The individual responsible for patient's care is identified.	4	4
		(2) The individual is qualified to assure responsibility for patient's care.	4	4
		(3) The individual is identified to the organization's staff.	4	4

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ACCESS TO CARE AND CONTINUITY OF CARE (ACC)				
Standard #	**Standard**	**Measurable Element** (# of measurable element)	**Evaluation Score**	
			2000	**2005**
ACC.2.2	Information about the patient's care and response to care is shared among medical, nursing and other care providers during each shift, between shifts, and during transfer between units.	(1) There is a process to transfer patient information between the care providers on an ongoing basis or at key times in the care process.	4	4
ACC.2.2	Information about the patient's care and response to care is shared among medical, nursing and other care providers during each shift, between shifts, and during transfer between units.	(2) Information exchanged includes the patient's health status.	4	4
		(3) Information exchanged includes a summary of the care provided	4	4
		(4) Information exchanged includes the patient's progress.	4	4
		(5) When a transfer occurs, the reason for transfer is communicated.	4	4
ACC.2.3	The patient's record(s) is available to the care providers to facilitate the exchange of information.	(1) Policy establishes those care providers who have access to the patient's records.	3	4
		(2) The patient record(s) is available to those providers.	4	4
		(3) The records are up to date to ensure the transfer of the latest information.	4	4
ACC.2.4	Information related to the patient's care is transferred with the patient.	(1) The patient's records or summary of patient care information is transferred with patient.	4	4
		(2) The summary contains the reason for admission.	4	4
		(3) The summary contains significant findings.	4	4
		(4) The summary contains any diagnosis made.	4	4
		(5) The summary contains any procedures performed.	4	4
		(6) The summary contains any medications and other treatments.	4	4
		(7) The summary contains the patient's condition at transfer.	4	4
ACC.3	There is a process to appropriately refer or discharge patients.	(1) There is an organized process to refer and/or discharge patients.	3	4
		(2) The referral and/or discharge are based on the patient's needs for continuing care.	4	4
		(3) Criteria are used to determine readiness for discharge.	3	3

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ACCESS TO CARE AND CONTINUITY OF CARE (ACC)				
Standard #	**Standard**	**Measurable Element** (# of measurable element)	**Evaluation Score**	
			2000	**2005**
ACC.3.1	The organization cooperates with health care practitioners and outside agencies to ensure timely and appropriate referrals.	(1) The discharge planning process considers the need for both support services and continuing medical services.	2	3
		(4) Referrals are made when possible for support services	3	3
ACC.3.2	Patients and, as appropriate, their families are given understandable follow-up instructions at referral or discharge.	(1) Follow-up instructions are provided in an understandable form and manner.	4	4
		(2) The instructions include any return for follow-up care.	4	4
		(3) The instructions include when to obtain urgent care.	2	4
		(4) Families are also provided the instructions as appropriate to the patient's condition.	4	4
ACC.3.3	Patient records contain a copy of discharge summary.	(1) A discharge summary is prepared at discharge.	4	4
		(2) The summary contains the reason for admission.	4	4
		(3) The summary contains significant findings.	4	4
		(4) The summary contains any diagnosis.	4	4
		(5) The summary contains any procedure performed.	4	4
		(6) The summary contains any medications and other treatments.	2	2
		(7) The summary contains the patient's condition at discharge.	3	3
		(8) The summary contains discharge medications and follow-up instructions	3	3
		(9) When organization or practice dictates, the patient is given a copy of discharge summary.	4	4
ACC.4	There is a process to appropriately transfer patients to another organization to meet their continuing care needs.	(1) There is a process to transfer patients.	3	4
		(2) The transfers are based on the patient's need for continuing care.	4	4
		(3) The process addresses criteria that define when transfer is appropriate.	3	3
		(4) The process addresses who is responsible during transfer.	3	4

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ACCESS TO CARE AND CONTINUITY OF CARE (ACC)				
Standard #	**Standard**	**Measurable Element** (# of measurable element)	**Evaluation Score**	
			2000	**2005**
		(5) The process addresses the situation in which transfer is not possible.	3	4
ACC.4.1	The referring organization determines that the receiving organization can meet the patient's continuing care needs.	The referring organization determines that the receiving organization can meet the needs of patients to be transferred.	4	4
ACC.4.1.1	The organization establishes formal or informal arrangements and affiliations with receiving organizations to ensure continuity of care for its patients.	Formal or informal arrangements are in place with receiving organizations when patients are frequently transferred to the receiving organization.	4	4
ACC.4.2	The receiving organization is given a written summary of the patient's clinical condition and the interventions provided by the referring organization.	(1) Patient clinical information or a clinical summary is transferred with the patient.	4	4
		(2) The clinical summary includes patient status.	4	4
		(3) The clinical summary includes procedures and other interventions provided.	4	4
		(4) The clinical summary includes the patient's continuing care needs.	4	4
ACC.4.3	During transfer, a qualified staff member monitors the patient's condition	(1) All patients are monitored during transfer.	3	4
		(2) The qualification of the staff member is appropriate for the patient's condition.	4	4
ACC.4.4	The transfer process is documented in the patient's record	(1) The records of transferred patients note the health care organization agreeing to receive the patient.	4	4
		(3) The records of transferred patient note the reason(s) for transfer.	4	4

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FUNCTION: ASSESSMENT OF PATIENTS (AOP)

Follow-up evaluation highlights

Assessment of patients is a well-established process at NMMC. Qualified personnel conduct the assessment of patients. Medical, nursing, and other support services collaborate to analyze and integrate patient assessment results. The timeliness of assessment/reassessment and further care initiatives is decided based upon the needs of patient. Standard forms are used in outpatient clinics for documentation of assessment/reassessment results, which are available to all persons involved in patient care. There are in-house laboratory and radiology services that are convenient, regular, and adequate to meet the patients' needs at NMMC on a 24-hour basis. There is an established and regular quality control process within laboratories at NMMC. There is no formal radiation safety program or quality control program in the radiology department at NMMC. The radiation control activities at the center are limited to those enforced by RRC. Several radiation safety devices are available, but their protective effect is not checked regularly. There is no effective equipment management program at NMMC. The equipment is checked only if problems arise.

The following measures are recommended to improve patient assessment at NMMC:

- Develop written requirements/regulations defining the information obtained from the patients;
- Establish the time frames for different types of patient assessments;
- Develop forms for patient's preoperative assessment by anesthesiologist;
- Develop specific policy/guidelines for patient reassessment at the center and establishment of follow-up center;
- Develop more structured secondary visit forms, computerizing the follow-up information of patients in the databases of the clinics;
- Develop a laboratory safety program, organizing staff training on the program at the beginning of employment and periodically thereafter, and regular staff performance evaluations;
- Purchase fume hoods for assuring the safety of laboratory conditions for staff working with hazardous materials;
- Develop a radiation safety program at NMMC and hiring a person responsible for radiation control (a staff member, or a consultant) for regular checks of radiation safety;
- Develop a program for the management and maintenance of medical equipment.

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ASSESSMENT OF PATIENTS (AOP)				
Standard #	**Standard**	**Measurable Element** (# of measurable element)	**Evaluation Score**	
			2000	**2005**
AOP.1	All patients cared for by the organization have their health care needs identified through an established process.	Organization policy and procedure define the information to be obtained for inpatients and ambulatory patients.	3*	3
AOP.1.1	The organization has determined the scope and contents of assessments, based on applicable laws and regulations.	Only those individuals permitted by licensure, applicable laws and regulations, or certification perform the assessments.	4	4
AOP.1.3	Assessments are completed in the time frame prescribed by the organization.	Assessments are completed within the time frames established by the organization.	1	2
AOP.1.4	Assessment findings are documented in the patient's record and readily available to those responsible for the patient's care.	Assessment findings are documented in the patient's record.	4	4
AOP.2.1	The patient's medical and nursing needs are identified from the initial assessment.	(1) The initial assessment results in the identification of the patient's medical needs.	4	4
		(2)The initial assessment results in the identification of the patient's nursing needs.	3	3
AOP.2.1.1	The initial medical assessment is documented in the patient's record within the first 24 hours after the patient's entry.	The initial medical assessment is documented in the patient's record within the 24 hours of admission.	3	3
AOP.2.1.2	The initial medical assessment is documented before anesthesia and surgical treatment.	(1) The medical assessment of surgical patients is documented before surgery.	4	4
		(2) Surgical patients have a preoperative diagnosis recorded before surgery.	4	4
		(3) The anesthesia assessment determines if the patient is an appropriate candidate for the planned anesthesia.	4	3

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ASSESSMENT OF PATIENTS (AOP)				
Standard #	**Standard**	**Measurable Element** (# of measurable element)	**Evaluation Score**	
			2000	**2005**
AOP.3	All patients are reassessed at appropriate intervals to determine their response to treatment and to plan for continued treatment or discharge.	(1) Patients are reassessed at intervals appropriate to their condition, plan of care, and individual needs or according to organizational policies and procedures.	3	3
		(2) Reassessments are documented in the patient's record.	4	4
AOP.5.1	Clinical pathology services are provided by the organization to meet patient needs or are readily available through arrangements with outside sources.	(1) Adequate, regular, and convenient laboratory services are available to meet needs.	4	4
		(3) Outside sources are selected based on an acceptable record and compliance with laws and regulations.	2	3
AOP.5.2	A laboratory safety program is in place, followed, and documented.	(1) A laboratory safety program is in place and is appropriate to the risks and hazards encountered.	2	2
		(4) Appropriate safety devices are available.	3	3
AOP.5.3	Individuals with adequate training, skills, orientation, and experience administer the tests and interpret the results.	(1) Appropriately trained and experienced staff administers the test.	4	4
		(2) Appropriately trained and experienced staff interprets.	4	4
AOP.5.4	Laboratory results are available in a timely way as defined by the organization.	(1) The organization has established the expected report time for results.	3	3
		(2) Laboratory results are reported within a time frame to meet patient needs.	4	4
AOP.5.5	All laboratory equipment is regularly inspected, maintained, and calibrated, and appropriate records are maintained for these activities.	There is a laboratory equipment management program.	3*	2
AOP.5.6	Essential reagents and other supplies are regularly available.	Reagents and supplies of "high quality" are readily available at the laboratory, and they are maintained according to their date of expiration.	4	4

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ASSESSMENT OF PATIENTS (AOP)				
Standard #	**Standard**	**Measurable Element** (# of measurable element)	**Evaluation Score**	
			2000	**2005**
AOP 5.8	Established norms and ranges are used to interpret	(1)The laboratory has established reference ranges for each test performed	4	4
		(2) The range is included in the clinical record at the time test results are reported.	4	4
		(5) Ranges are reviewed and updated as needed.	4	4
AOP.5.10	Quality control procedures are in place, followed, and documented.	(1) There is a quality program for the clinical laboratory.	2	4
		(2) The program includes the validation of test methods.	4	4
AOP.6	Radiology services are available to meet patient needs, and all such services meet applicable local and national standards, laws, and regulations.	Radiological services meet applicable local and national standards, laws, and regulations.	4*	3
AOP.6.1	Diagnostic imaging services are provided by the organization or are readily available through arrangements with outside sources.	(1) Adequate, regular, and convenient radiology services are available to meet needs.	4	4
		(2) Radiology services are available for emergencies after normal hours.	4	4
		(3) Outside sources are selected based on an acceptable record and compliance with laws and regulations.	2*	4
AOP.6.2	A radiation safety program is in place, followed, and documented.	(1) A radiation safety program is in place and appropriate to the risks and hazards encountered.	4*	2
		(5) Appropriate radiation safety devices are available.	4*	3
AOP.6.3	Individuals with adequate training, skills, orientation, and experience administer the tests and interpret the results.	(1) Appropriately trained and experienced staff administers tests.	4	4
		(2) Appropriately trained and experienced staff interprets tests.	4	4
AOP.6.4	Radiology results are available in a timely way as defined by the	(1) The organization has established the expected report time for results	2	2

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ASSESSMENT OF PATIENTS (AOP)				
Standard #	**Standard**	**Measurable Element** (# of measurable element)	**Evaluation Score**	
			2000	**2005**
	as defined by the organization.	(2) Radiology results are reported within a time frame to meet patient needs.	4	4
AOP.6.5	All diagnostic equipment is regularly inspected, maintained, and calibrated, and appropriate records are maintained for these activities.	(1)There is a radiology equipment management program.	4*	3
		(5) The program includes calibrating and maintaining equipment.	4*	3
AOP.6.6	X-ray film and other supplies are regularly available.	(1) Essential reagents and supplies are identified.	4	4
		(2) Essential reagents and supplies are available.	4	4
AOP.6.8	Quality control procedures are in place, followed, and documented.	(2) Quality control includes daily surveillance of results.	4*	2
		(5) Quality control includes documenting results and corrective actions.	2	2
AOP.7	Medical, nursing, and other individuals and services responsible for patient care collaborate to analyze and integrate patient assessments.	(1) Patients assessment data and information are analyzed and integrated.	4	4
		(2) Those responsible for the patient's care participate in the process.	3	3
AOP.7.1	The most urgent or important care needs are identified.	(1) Patient needs are prioritized based on assessment results.	4	4
		(2) The patient and his or her family participate in the decisions about the priority needs to be met.	4	4

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FUNCTION: CARE OF PATIENTS (COP)

Follow-up evaluation highlights

CARE DELIVERY FOR ALL PATIENTS

Care delivery is a well-established process at NMMC. This process is based on verbally established policies and procedures. The care provided at NMMC is uniform for all patients initially able to pay for the services. The resources allocated for patient care are decided based on the patients' needs. Daily patient rounds, weekly inter-departmental conferences, integrated patient records, and "case manager" served as means for coordination of care at NMMC. The care for all patients is planned and the plan is revised consistent with changes in a patient's condition. However, those plans are not always recorded. Each department has its own established process for making orders. The received care (procedures, medications, etc.) is always documented in the patient record.

CARE OF HIGH-RISK PATIENTS AND PROVISION OF HIGH-RISK SERVICES

There is a well-established process for provision of high-risk services and for care of high-risk patients at NMMC. The process is generally based on verbally established procedures and criteria. However, since the baseline survey several protocols, guidelines were developed on medication use in ICU. Individual lists with calculated doses of defined medications in case of cardio pulmonary resuscitation (CPR) are attached near the beds of all patients. A EUROscore is used now to define the perioperative risk of mortality for patients undergoing cardiac surgery. Emergency patients referred to NMMC by ambulance are admitted and provided with necessary care at recently opened emergency room and there is an established process for that. All clinical personnel on duty are equipped with pagers now. The telemetry during 24 hours a day is available in all wards, which is also an improvement compared to the baseline. The staffing of nurses is increased for quality of care reasons (3 nurses per 10 patients in wards, at least 1 nurse per patient at ICU). Improvement of conditions for ICU patients on life support was noted. The infection control practices have improved at ICU and generally. Blood bank that follows policies and procedures of the American Association of Blood Banks was established at NMMC during recent years. The donor and patient blood is checked on a list of infections before processing. The blood bank in collaboration with ANP coordinators developed SOPs for all procedures. Recently a database was developed for blood products. Staff of blood bank developed few guidelines for clinicians on the use and handling of blood products.

ANESTHESIA CARE

A qualified anesthesiologist conducts a pre–anesthesia assessment before the induction of anesthesia. The plan of anesthesia is then developed but not documented. Patients/families are informed on the risks and potential complications of anesthesia. Now all patients sign a consent form (developed by ANP team) before surgical/invasive procedures. The form includes also info on risks of anesthesia. The anesthesia used and the anesthesia technique are recorded into special forms and the summary is involved into patient record. The physiological status is continuously monitored and documented during the administration of anesthesia. Recently NMMC received transesophageal echocardiography that allows improving the quality of monitoring. The post-anesthesia monitoring of patients is conducted in the OR by anesthesiologists and surgeons and by reanimatologists at ICU. A patient is removed from OR to ICU based on collaborative decision of the surgeon and anesthesiologist. The discharge of patient from ICU is done based on the verbally established rules.

SURGICAL CARE

Surgical care for each patient is planned but not well documented (the plan is partially documented in consent forms and SEFs at ambulatory clinics). The scheduling for surgeries has limitations, as patients

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often are belatedly informed about changes. Thus, the preparing of a patient to anesthesia and surgery is affected. The physiological status of patients is continuously monitored during surgery and monitoring results are documented. The preoperative and post-operative diagnoses are noted into patients' records. The patients/families are thoroughly educated on the risks and possible complications of surgery and possible complications related to blood and blood product use. The written consent is obtained from patients/guardians before any surgical procedure. Surgical procedures are described in surgical protocols, and their brief summaries included into patients' records. Post-surgical care of patients is planned but not always documented.

MEDICATION USE

Medication use is efficiently organized to meet patient needs at the center. Recently created inventory department collaboratively with the head nurses coordinates the process. The coordination improved during the last years: daily monitoring of the availability of medications, daily inspection of local storehouses in each department, setting required minimum number of available supplies, recording of existing and used supplies into special computerized accounting software. The pharmacy service at NMMC complies with Armenian laws and verbally established internal regulations. There is a list of medications used at NMMC, which are stored in the storehouses or are readily available. The clinical leaders modify the list of used medications based on the quality of care, market, and cost issues. There is a process of obtaining medication not available in the stores and after regular working hours. According to the orally established policies, the minimum required number of emergency medication is always stored at ICU. There is no good process to guard emergency medications from loss or theft. There is a process to supervise medication brought by patients from outside. NMMC has strict policy to provide all patients with medication for 2 days at time of discharge. Verbally established procedures guide the storage, handling and distribution of parenteral and enteral tube nutrition therapy products at NMMC (e.g. the calculation of nutrition is done by physician and nurse). The data on administered nutrition are entered into specially designed forms. Medications prescribed to patients are recorded in the Medication Order Form. The medication orders are reviewed by clinical leaders daily during clinical rounds. Medication effects are monitored and the type and dosage of medication are adjusted as needed. Adverse effects are recorded into patients' records.

FOOD AND NUTRITION THERAPY

There is an improvement in that food is ordered for ICU patients based on patient needs and preferences. Family members or, rarely, cafeteria provide the food for other patients. Ordered food is not recorded. Only the parenteral/enteral nutrition is noted in patient records.

Following measures are recommended to improve the function of care of patient at NMMC:

- Document verbally established policies and procedures for regulated areas of care of patients and develop policies for non regulated areas;
- Develop forms for recording patients' plan of care in those departments where it is not being recorded, document patient care team meetings and discussions;
- Develop order forms for the departments;
- Standardize the provided care further by increasing the use of clinical practice guidelines and pathways;

- Develop formal criteria for differentiation of high risk patients and procedures;
- Develop policies and procedures for care of vulnerable children and elderly;

- Develop anesthesia database, improve anesthesia chart making it more informative;

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- Increase the role of anesthesiologists in providing information to patients/families on the risks, complications, and options of anesthesia;
- Develop forms for pre-anesthesia assessment and documentation of its results, as well as document anesthesia plan in patient records;

- Improve the scheduling system for surgeries;
- Inform all candidates for surgery on the alternatives of blood/blood products;
- Improve the recording at surgical department;
- Develop a special form or location in patient record to record the plan of care after surgery;

- Develop written operating plan for medication management at NMMC;
- Involve the pharmacy and financial department in the process of overseeing the list of used medications;
- Calculate medication items used on the level of local stores of departments;
- Improve conditions at storehouses, develop a system to monitor conditions;
- Adopt the system of required patient identifiers;
- Monitor medication administration by nurses from time to time;

- Develop a system for making orders for food for at least some defined categories of patients;
- Appoint nutritional specialist or a consultant when needed for planning the nutrition/diet of patients;
- Enlarge cafeteria services to provide choice for patients and their families for ordering food of adequate quality at NMMC.

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CARE OF PATIENTS (COP)				
Standard #	**Standard**	**Measurable Element** (# of measurable element)	**Evaluation Score**	
			2000	**2003**
COP.1	Policies and procedures and applicable laws and regulations guide the uniform care of all patients.	(1) The organization's clinical and managerial leaders collaborate to provide uniform care process.	4	4
		(2) When similar care provided in more than one setting, care delivery is uniform.	4*	3
		(3) Policies and procedures guide uniform care and reflect relevant laws and regulations.	4	4
COP.2	There is a process to integrate and coordinate the care provided to each patient.	(1) Care planning is integrated and coordinated among settings, departments and services.	4	4
COP.2.1	The care provided to each patient is planned and written in the patient record.	(1) The care for each patient is planned.	4	4
		(2) The care planned is noted in the patient's record.	2	2
		(4) The care providers for each patient are noted in the patient's record.	4	4
		(5) Any patient care team meetings are noted in the patient records.	1	1
COP.2.2	Those permitted to write patient orders write the order in the patient record in a uniform location.	(1) Orders are written when required.	3	3
		(2) Orders are found in a uniform location in patient records.	1	2
COP.2.3	Procedures performed are written into the patient's record.	(1) The results of procedures performed are entered into the patient's record.	4	4
COP.2.4	Each care provider has access to the patient care notes recorded by other care providers, consistent with organization policy.	(1) There is a method for one care provider to access other provider's care notes.	4	4
COP.2.5	The patient's plan of care is revised when indicated by a change in the patient's condition.	(1) The patient's plan of care is modified as the patient's needs change.	4	4
COP.3	Clinical practice guidelines, when available and adopted by the organization, are used to guide the patient's clinical care.	(1) Clinical guidelines when available and relevant to the organization's patients and sources, are used to guide patients care process.	N/A	2

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CARE OF PATIENTS (COP)				
Standard #	**Standard**	**Measurable Element** (# of measurable element)	**Evaluation Score**	
			2000	**2003**
COP.5	Policies and procedures guide the care of high-risk patients and the provision of high-risk patients and services.	(1) The organization's clinical and managerial leaders have identified the high-risk patients and services.	3	3
		(3) Staff has been trained and uses the policies and procedures to guide care.	1	3
COP.5.1	Policies and procedures guide the care of emergency patients.	(2) Patients receive care consistent with the policies and procedures.	3	3
COP.5.2	Policies and procedures guide the use of resuscitation services throughout the organization.	(1) Resuscitation is provided according to policies and procedures.	3	3
COP.5.3	Policies and procedures guide the handling, use, and administration of blood and blood products.	(2) Blood and blood products are administered according to policies and procedures.	4	4
COP.5.4	Policies and procedures guide the care of patients on life support or who are comatose.	(1) Patients on life support receive care according to the policies and procedures.	3	3
COP.5.8	Policies and procedures guide the care of vulnerable elderly patients and of children.	(2) Frail, dependent elderly patients receive care according to the policies and procedures.	1	3
		(4) Young, dependent children receive care according to the policies and procedures.	2	3
COP.6.	A qualified individual conducts a pre-anesthesia assessment.	(1) Pre –anesthesia assessment is performed for each patient before anesthesia induction.	4	4
		(2) A qualified individual performs the assessment.	4	4
COP.7	Each patient's anesthesia care is planned and documented.	(1) The anesthesia care of each patient is planned.	4*	3
		(2) The plan is documented.	2*	1
COP.7.1	The risks, potential complications, and options are discussed with the patient, his or her family or those who make decisions for the patient.	(1) The patient and decision-makers are educated on risks, potential complications and options of anesthesia.	2	3
		(2) The anesthesiologist or other qualified individual providers the education.	4	4
COP.7.2	The anesthesia used is written in the patient record.	(1) The anesthesia used and anesthetic technique are entered into the patient's anesthesia record.	4	4

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Standard #	**Standard**	**Measurable Element** (# of measurable element)	**Evaluation Score**	
			2000	**2003**
COP.7.3	Each patient's physiological status during anesthesia administration is continuously monitored and written in the patient's record.	(1) Physiological status is a continuously monitored during anesthesia administration.	4	4
		(2) The results of monitoring are entered into the patient's anesthesia record.	4	4
COP.8	The patient's post-anesthesia status is monitored and documented and a qualified individual discharges the patient from the recovery area using established criteria.	(1) The patients are monitored appropriate to their condition during the post-anesthesia recovery period.	4	4
		(2) Monitoring findings are entered into the patient's record.	4	4
		(3) Established criteria are used to make discharge decisions.	4	4
		(5) Recovery area arrival and discharge times are recorded.	4	4
COP.9	Equipment, supplies and medications recommended by anesthesia professional organizations or by alternative authoritative sources are used.	(1) Recommended equipment is used.	4	4
		(2) Recommended supplies are used.	4	4
		(3) Recommended medications are used.	4	4
COP.10	Each patient's surgical care is planned and documented, based on the results of the assessment.	(1) Each patient's surgical care is planned.	3	3
		(4) A preparative diagnosis is documented.	4	4
COP.10.1	The risks, benefits, potential complications, and options are discussed with the patients and his or her family or those who make decisions for patients.	(1) The patient, family and decision makers are educated on the risks, benefits, potential complications and options related to the planned surgical procedures.	4	4
		(2) The education includes the need for risk of, and alternatives to blood and blood product use.	4*	3
		(3) The patient' surgeon or other qualified individual provides the education.	4	4
COP.10.2	The surgery performed is written in the patient record.	(1) A postoperative diagnosis is documented.	2	3
		(2) A description of the surgical procedure, findings and any surgical specimens is documented.	4*	3
		(3) The names of surgeon and surgical assistants are documented.	4*	3

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		(4) The surgical report is available within a time frame needed to provide post-surgical care to the patient.	4*	3
COP.10.3	Each patient's physiological status is continuously monitored during and immediately after surgery and written in the patient's record.	(1) The patient's physiological status is continuously monitored during surgery.	4	4
		(3) Findings are entered into the patient's record.	4	4
COP.10.4	Patient care after surgery is planned and documented.	(1) Each patient's medical, nursing and other post-surgical care is planned.	4	4
		(2) The plan is documented in the patient's record.	1^	3
COP.11	Medication use in the organization is efficiently organized to meet patient needs.	(1) Medication use is organized throughout the organization so that patient's medication needs are met.	4*	4
COP.11.1	The pharmacy or pharmaceutical service and medication use in the organization comply with applicable laws and regulations.	(1) The pharmacy or pharmaceutical service and medication use comply with applicable laws and regulations.	2	3
COP.11.2	An appropriate selection of medications for prescribing or ordering is stocked or readily available	(1) Medications available for prescribing and ordering are appropriate to the organization's mission, patient needs and services provided.	4	4
		(2) There is a list of medications stocked in the organization or readily available from outside sources.	4	4
COP.11.2.1	There is a method for overseeing the organization's medication list and medication use.	(1) There is a method for overseeing the medication list.	2	3
COP.11.2.2	The organization can readily obtain medications not stocked or normally available to the organization.	(1) There is a process to obtain required medications not stocked or normally available to the organization.	4	4
COP.11.2.3	There is a process to obtain medications when the pharmacy or pharmaceutical service is closed.	(1) There is a process to obtain medications when the pharmacy is closed.	4	4

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Standard #	**Standard**	**Measurable Element** (# of measurable element)	**Evaluation Score**	
			2000	**2003**
COP.11.2.4	Emergency medications are available, monitored and safe when stored out of the pharmacy.	(1) Emergency medications are available in the organization within a time frame to meet emergency needs.	4	4
		(2) Emergency medications are protected from loss and theft	2	2
COP.11.3	Prescribing, ordering and administration of medications are guided by policies and procedures.	(1) Policies and procedures guide the safe prescribing, ordering and administration of medications in the organization.	3	3
		(2) Documentation requirements are stated.	2	2
		(4) Relevant staff is trained in correct prescribing, ordering and administration practice.	4	4
COP.11.3.2	Policies and procedures govern any patient self-administration of medications, the control of medication samples, the use of any medications brought into the organization by the patient or his her family, and dispensing of medications at discharge.	(1) Policies and procedures govern patient self-administration of medications.	3	3
		(3) Policies and procedures govern the documentation and management, of any medications brought into the organization for or by the patient.	3	3
		(4) Policies and procedures govern the dispensing of medications at the time of the patient's discharge.	3	3
COP.11.3.3	Policies and procedures govern the preparation, handling, storage and distribution of parenteral and enteral tube therapy.	(1) Policies and procedures guide the storage, preparation, handling and distribution of parenteral and enteral tube nutrition products.	3	4
COP.11.4	Medications are stored, prepared and dispensed in a safe and clean environment.	(2) Medications are stored properly.	4*	3
		(3) Medications are prepared and disposed in clear and safe areas.	N/A	N/A
COP.11.4.1	An appropriately licensed pharmacist, technician or other trained professional supervises the storage, preparation and dispensing of medications.	(1) A qualified individual supervises all activities.	4	4
COP.11.4.2	Medication prescriptions or orders are verified.	(1) Each prescription or order is reviewed.	1*	3
COP.11.4.3	The organization has a medication recall system.	(2) Policies and procedures address any use of medications known to be expired or outdated.	4	4

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CARE OF PATIENTS (COP)				
Standard #	**Standard**	**Measurable Element** (# of measurable element)	**Evaluation Score**	
			2000	**2003**
		(3) Policies and procedures address the destruction of medications known to be expired or outdated.	4	4
		(4) Policies and procedures are implemented.	4	4
COP.11.4.4	A system is used to dispense medications in the right dose to the right patient at the right time.	(1) There is a uniform medication dispensing and distribution system in the organization.	4	4
COP.11.5	Patients are identified before medications are administered.	(1) Patients are identified before medications are administered.	2	3
COP.11.5.1	The right dose of medication is administered at the right time.	(1) Medications are verified with the prescription or order.	4	4
		(2) The dosage amounts of the medication are verified with the prescription or order.	4	4
		(4) Medications are administered on a timely basis.	4	4
		(5) Medications are administered as prescribed.	4	4
COP.11.6	Medication effects on patients are monitored.	(1) Medication effects are monitored.	4	4
COP.11.6.1	Medications prescribed and administered are written in the patient's record.	(1) Medications prescribed or ordered are recorded for each patient	4	4
		(3) Medication information is kept in the patient's record or inserted into his or her record at discharge or transfer.	4	4
COP.11.6.2	Adverse medication effects are noted in the patient's record.	(1) Monitoring includes observing adverse medication effects.	4	4
		(3) Adverse effects are documented in the patient's record.	4	4
COP.12	Food, appropriate for the patient and consistent with his or her clinical care is regularly available.	(1) Food, appropriate to the patient, is regularly available.	4	4
COP.12.1	All patients receive an order for food or other nutrients based on their nutritional status or need, including orders for nothing by month, a regular diet, a special diet, or parenteral or enteral tube nutrition.	(1) All patients have an order for food in their record.	4*	3
		(2) The order is based on the patient's nutritional status and needs.	4*	2

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FUNCTION: PATIENT AND FAMILY EDUCATION (PFE)

Follow-up Evaluation Highlights

There is a continuing process of patient education at the center to meet the ongoing health needs of patients and to achieve their health goals. Knowledgeable staff members often provide the education collaboratively (nurses, physicians). The education is provided in a simple and understandable format. Patients' and families' educational needs are verbally assessed but assessment findings are not documented into patient records. No written policy guiding educational needs assessments, educational process, and knowledge evaluations regulates and coordinates the process of patient and family education at the center. Since 2004, patients or legal guardians sign a special "consent form" before invasive or surgical procedures that identifies that they have received information to give informed consent.

In collaboration with NMMC staff, the ANP team developed series of six educational brochures for patients related to risk factors of ischaemic heart disease, cardiac surgery in adults, cardiac surgey in children, percutaneous coronary angioplasty and stenting, valve surgery, and coronary artery bypass grafting. Several quality indicators of educational activities at NMMC were monitored through ongoing distribution of "Discharge questionnaires" among patients. The data was analyzed and yielded rather satisfactory results in respect to counseling on healthy lifestyle, physical activity, healthy diet, medication after discharge, and smoking cessation.

Based on the follow-up evaluation the following recommendations are made:

- Identify the educational needs of each patient depending on the type of disease and/or planned intervention and record the educational needs of each patient in their medical record;
- Plan educational activities and implement them in a coordinated way.
- Appoint a patient/family education coordinator (e.g. nurse) responsible for educational activities, who will contribute to providing education in a coordinated manner;
- Assess the educational needs of patients periodically and develop new written materials, videotapes, leaflets, and lectures as well as update old materials when needed;
- Establish new communications with community organizations who provide preventive and health promotion services to population;
- Periodically assess the educational activities provided at NMMC: particularly the quality of educational materials in use, knowledge and practices of patients, counseling skills of providers, etc;
- Improve provider counseling and communication skills following the findings of regular assessments.

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PATIENT AND FAMILY EDUCATION (PFE)				
Standard #	**Standard**	**Measurable Element** (# of measurable element)	**Evaluation Score**	
			2000	**2005**
PFE.1	Education supports patient and family participation in care decisions and care process.	(1) The organization plans education consistent with its mission, services and patient population.	3	3
		(2) There is an appropriate structure or mechanism for education throughout the organization.	3	3
PFE.1.1	Each patient's education needs are assessed and recorded in his or her records.	(1) The patient's and family education needs are assessed.	3	3
		(2) Assessment findings are recorded in the patient's record.	1	1
		(3) There is a uniform process for recording patient education information.	1	1
PFE.1.2	Each patient and his or her family receive education to help them give informed consent, participate in care processes, and understand any financial implications of care choices.	(1) Patients and family learn about informed consent.	4*	4
		(2) Patients and family learn about participation in care decisions.	4	4
		(3) Patients and families learn about participation in the care process.	4	4
		(4) Patients and families learn about any financial implications of care decisions.	4	4
PFE.2	Education and training help meet patient's ongoing health needs.	Patients and families receive education and training to meet their ongoing health needs or achieve their health goals.	4*	4
PFE.2.1	The organization cooperates with available community resources to provide health promotion and disease prevention education.	The organization identifies and establishes relationships with community resources that support continuing health promotion and disease prevention education.	1	3
PFE.3	Patient and family education include the following topics, as appropriate to the patient's care: the safe use of medications, the safe use of medical equipment, potential interactions between medications and food, nutritional guidance and rehabilitation techniques.	(1) When appropriate, patients and families are educated about the safe and effective use of medications and potential side effects of medications.	4	4
		(2) When appropriate, patients and families are educated about safely and effectively using medical equipment.	4	4
		(3) When appropriate, patients and families are educated about preventing interactions between medications and food.	4	4

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PATIENT AND FAMILY EDUCATION (PFE)				
Standard #	**Standard**	**Measurable Element** (# of measurable element)	**Evaluation Score**	
			2000	**2005**
		(4) When appropriate, patients and families are educated about appropriate diet and nutrition.	4	4
		(5) When appropriate, patients and families are educated about rehabilitation techniques.	4	4
PFE.4	Education methods consider the patient's and family's values and preferences and allow sufficient interaction among the patient, family and staff for learning to occur.	(1) Education methods are selected on the basis of patient and family values and preferences.	4	4
		(2) Interaction among staff, the patient, and family confirms that the information was understood.	4	4
PFE.4.1	The patient and family are taught in a format and language that they understood.	The patients and families are taught in a format they understand.	3	3
PFE.4.2	Health professionals caring for the patient collaborate to provide education.	Patient and family education is provided collaboratively when appropriate.	4	4
PFE.4.2.1	These professionals have the knowledge and skills required for effective education.	(1) Those who provide education have the knowledge to do so.	4	4
		(1) Those who provide education have the communication skills to do so.	2	3

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FUNCTION: PATIENT AND FAMILY RIGHTS (PFR)

Follow-up evaluation highlights

The most significant change from the baseline evaluation was the development, approval, and implementation of a written policy on Patient and Family Rights. The written policy provides plans and procedures for several important functions in ensuring the rights of patients and families including informed consent, protection of patient belongings, patient participation in research studies, and patient participation in the decision-making process. The leaflets of patient/family rights were distributed to patients, the posters with patient/family rights were placed in all waiting rooms. NMMC has a procedure for obtaining informed consent from patients or their health representatives in the event the patients themselves cannot grant consent. NMMC also has a process for obtaining consent for patients who are minors or incapacitated adults. NMMC PFR policy details individuals (in order) who may grant consent for a patient. Individuals granting consent are noted by name and signature in the patient record. In addition, PFR policy states the services for which specific informed consent is required and events that do not require informed consent. NMMC has an established price list for services and PFR policy identifies financially vulnerable patient groups who are entitled to discounted services. Furthermore, transparency in service pricing affords patients the opportunity to decide whether particular treatments are economically feasible. PFR policy secures the right of patients and family to participate in the service delivery process by being informed of conditions, proposed treatments, alternatives to treatment, consequences of non-treatment, expected outcomes, and possible risks. Patient participation in the health care process also ensures values and beliefs are identified and respected.

NMMC PFR policy states the rights of patients and family to refuse treatment, discontinue treatment, or to be discharged against medical advice. Patients and family members are informed of the consequences of their decisions and are required to sign forms stating that they are making an informed decision to refuse or terminate care against medical advice.

NMMC PFR policy details its level of responsibility for securing patient belongings, protecting patients from abuse, and investigating suspected cases of abuse or neglect. There is a process for patients and family to file formal complaints but the policy is not clear as to how this is accomplished and the level of involvement of the individuals filing the complaint. The policy also does not identify the specific individuals who will receive the complaint and participate in the resolution process.

Patients and physicians must authorize the release of medical records to a third party unless the receiving organization or individual is involved in the continuing care of the patient. Access to patient records is limited to authorized clinical staff, but PFR policy does not identify those individuals by name, title, or professional position.

The following measures are recommended to improve the rights of families and patients of NMMC:

- Formulate, approve, and implement organization-wide and departmental mission statements identifying the objectives, goals, and services provided;
- Consider the use of specific consent forms for the use of anesthesia during surgical and invasive procedures;
- Consider the use of specific consent forms for the use of blood and blood products during surgical and invasive procedures;
- Establish a formal training and orientation program for new employees including issues of patient rights, family rights, identification of values, confidentiality, and privacy;

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- Develop a written procedure for the complaint process possibly including a complaint form available for patients to complete and identification of individuals who are responsible for receiving and addressing complaints;
- Require visitors to register with security services and wear badges identifying them as visitors;
- Create formal visiting hours to ensure the safety of patients and staff;
- Allow patients a single family member who may visit outside of established visiting hours;
- Implement passive programs for patient privacy and confidentiality by posting signs in public areas instructing staff to not discuss patients or other staff related issues in the company of a third party.

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PATIENT AND FAMILY RIGHTS (PFR)				
Standard #	**Standard**	**Measurable Element** (# of measurable element)	**Evaluation Score**	
			2000	**2005**
PFR.1	The organization is responsible for providing process that support patients' and families' rights during care.	(2) The leaders understand patient and family rights as identified in laws and regulations.	2	3
		(3) The leaders work collaboratively to protect and advance patient and family rights.	3	3
		(5) Staff members can explain their responsibilities in protecting patient rights.	3	3
		(6) Policies and procedures guide and support patient and family rights in the organization.	2	4
PFR.1.1	The organization informs patients and families about its care and services and how to access those services.	(1) Patients are provided information on the care and services provided by the organization.	2	3
		(3) The information is provided to families, as appropriate.	4	4
		(4) Information on alternative sources of care and services is provided when the organization cannot provide the care or services.	4	4
PFR.1.2	Care is considerate and respectful of the patient's personal values and beliefs.	(1) There is a process to identify and respect patient values and beliefs.	3	4
		(2) Staff uses the process and provides care that is respectful of the patient's values and beliefs.	4	4
PFR.1.3	Care is respectful of the patient's need for privacy.	A patient's needs for privacy is respected for all examinations, procedures and treatments.	2	2
PFR.1.4	The organization takes measures to protect patient's possessions from theft and loss.	(1) The organization has determined its level of responsibility for patients' possessions.	1	3
		(2) Patients receive information about the organization's responsibilities for protecting personal belongings.	1	3
		(3) Patient's possessions are safeguarded when the organization assures responsibilities or when patient is unable to assure responsibility.	2	3
PFR.1.5	Patients are protected from physical assaults.	(1) The organization has a process to protect patients from physical assault.	2	3

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PATIENT AND FAMILY RIGHTS (PFR)				
Standard #	**Standard**	**Measurable Element** (# of measurable element)	**Evaluation Score**	
			2000	**2005**
		(2) Individuals without identification are investigated.	2	3
PFR.1.6	Vulnerable children, disabled individuals, and elderly receive appropriate protection.	(1) The organization identifies its vulnerable patient groups.	4	4
		(2) Vulnerable children, disabled individuals, the elderly, and others identified by the organization are protected.	4	4
PFR.1.7	Patient information is confidential and protected from loss or misuse.	(2) Policies and procedures to prevent the loss of patient information are implemented.	3	4
		(3) Policies and procedures to prevent the misuse of patient information are implemented.	3	4
PFR.2	The organization supports patients' and families' rights to participate in the care process.	(1) Policies and procedures are developed to support and promote patient and family participation in care processes.	3	4
		(3) Staff members are trained on the policies and procedures and their role in supporting participation in care processes.	2	3
PFR.2.1	The organization informs patients and families how they will be told of medical conditions and treatments and how they can participate in care decisions, to the extent they wish to participate.	(1) Patients and families understand how and when they will be told of medical conditions.	4*	3
		(2) Patients and families understand how they will be told of planned treatment.	4*	3
		(3) Patients and families understand the process used to obtain consent.	4	4
		(4) Patients and families participate in care decisions to the extent they wish.	4	4

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PATIENT AND FAMILY RIGHTS (PFR)				
Standard #	**Standard**	**Measurable Element** (# of measurable element)	**Evaluation Score**	
			2000	**2005**
PFR.2.2	The organization informs patients and families about their rights and responsibilities related to refusing or discontinuing treatment.	(1) The organization informs patients and families about their rights to refuse or discontinue treatment.	4	4
		(2) The organization informs patients and families about the consequences of their decisions.	4	4
		(4) The organization informs patients about available care and treatment alternatives.	4	4
PFR.2.3	The organization respects patient wishes and preferences to withhold resuscitative services and forgo or withdraw life-sustaining treatments.	(1) The organization has identified its position on withholding resuscitative services and forgoing or withdrawing life-sustaining treatments.	1	3
		(3) Policies and procedures guide the process for patients to make their decisions known to the organization and for modifying decisions during the course of care.	2	3
		(4) Policies and procedures guide the organization's response to the patient decisions.	2	3
		(6) Documentation about decisions follows organization policy.	1	3
PFR.2.4	The organization has processes to assess and manage pain appropriately.	(1) The organization respects and supports the patient's right to appropriate assessment and management of pain.	3	4
		(2) The organization identifies patients in pain during the assessment process.	4	4
		(3) The organization communicates with and provides education for patients and families about the pain and pain management.	4	4
		(4) The organization educates health professionals in assessing and managing pain.	3	4
PFR.4	The organization informs patients and families about how to gain access to clinical research, investigations, or clinical trials involving	(1) Patients and families are informed about how to gain access to those research, investigations, or clinical trials relevant to their treatment needs.	4	4

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PATIENT AND FAMILY RIGHTS (PFR)				
Standard #	**Standard**	**Measurable Element** (# of measurable element)	**Evaluation Score**	
			2000	**2005**
	clinical trials involving human subjects.	(2) Patients asked to participate are informed about expected benefits.	4	4
		(3) Patients asked to participate are informed about potential discomfort and risks.	4	4
		(6) Patients are assured that their refusal to participate or withdraw from participation will not compromise their access to the organization's services.	4	4
PFR.6	The organization informs patients and families about its process to receive and act on complaints, conflicts, and differences of opinion about patient care and the patient's right to participate in these processes.	(1) Patients are aware of their right to voice a complaint and the process to do so.	2	3
		(2) Complaints are reviewed according to the organization's mechanism.	2	3
		(4) Policies and procedures identify participants in the process.	1	2
		(5) Policies and procedures identify how the patient and family participate.	2	2
PFR.7	Staff members understand their role in identifying patient's values and beliefs and protecting patient's rights.	(1) Staff members understand their role in identifying patient and family values and beliefs and how such values and beliefs can be respected in the care process.	3	4
		(2) Staff members understand their role in protecting patient and family rights.	3	3
PFE.8	All patients are informed about their rights in a manner they can understand	(1) Each patient receives information about his or her rights in writing.	1	3
		(2) The organization has a process to inform patients of their rights when written communication is not effective or appropriate.	2	3

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PATIENT AND FAMILY RIGHTS (PFR)				
Standard #	**Standard**	**Measurable Element** (# of measurable element)	**Evaluation Score**	
			2000	**2005**
PFR.9	Patient informed consent is obtained through a process defined by the organization and carried out by trained staff.	(1) The organization has a defined consent process described in policies and procedures.	3	4
		(3) Patients give informed consent consistent with the policies and procedures.	4	4
PFR.9.1	Patient and families receive adequate information about the illness, proposed treatment, and care providers so that they can make care decision.	(1) Patients are informed of their condition.	4	4
		(2) Patients are informed about the proposed treatment.	4	4
		(3) Patients are informed about the potential benefits and drawbacks to the proposed treatment.	4	4
		(4) Patients are informed about possible alternatives to the proposed treatment.	4	4
		(5) Patients are informed about the likelihood of successful treatment.	4	4
		(6) Patients are informed about possible problems related to recovery.	4	4
		(7) Patients are informed about the possible results of non-treatment.	4	4
		(9) Patients know the identity of the physician or other practitioner responsible for their care.	4	4
PFR.9.1.1	The information is provided in a way and language understood by those making the care decision.	(1) The information is provided to the patient in a clear and understandable way.	4	4
PFR.9.2	The organization establishes a process, within the content of existing law and culture, for when other can grant consent.	(1) The organization has a process for when others can grant informed consent.	2	4
PFR.9.2.1	When someone other than the patient gives the informed consent, that individual is noted in the patient's record.	(1)Individuals, other than patient, granting consent are noted in the patient's record.	4	4

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PATIENT AND FAMILY RIGHTS (PFR)				
Standard #	**Standard**	**Measurable Element** (# of measurable element)	**Evaluation Score**	
			2000	**2005**
PFR.9.4	Informed consent is obtained before surgery, anesthesia, use of blood and blood products, and other high-risk treatments and procedures.	(1) Consent is obtained before surgical or invasive procedures.	4	4
		(2) Consent is obtained before anesthesia.	1	3
		(3) Consent is obtained before use of blood and blood products.	1	3
		(4) Consent is obtained before other high-risk procedures and treatments.	4	4
		(5) The identity of the individual providing the information to the patient and family is noted in the patient's record.	3	4
PFR.9.4.1	The organization lists those categories or types of treatments and procedures that require specific informed consent.	(1) The organization has listed those procedures and treatments that require separate consent.	1	4
		(2) The list was developed collaboratively by those who provide the treatments and perform the procedures.	N/A	4
PFR.9.6	The patient's signature or other indication of all types of consent is documented in his or her record.	(1) Consent is documented in the patient's clinical record by signature or record of verbal consent.	4	4
PFR.10	The organization provides patient care within business, financial, ethical, and legal norms that protect patients and their rights.	(1) Organization leaders establish ethical and legal norms that protect patients and their rights.	2	3
PFR.10.1	The organization's mission statement is made public.	(1) The leaders make public the organization's mission statement.	1	2
PFR.10.2	The organization has established and implemented a framework for ethical management that includes marketing, admission, transfer, and discharge, and disclosure of ownership and any business and professional conflicts that may not be in the patients' best interests.	(3) The organization honestly portrays its services to patients.	4	4
		(5) The organization accurately bills for its services.	4	4
		(6) The organization discloses and resolves conflicts when financial incentives and payment arrangements compromise patient care.	N/A	N/A

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FUNCTION: FACILITY MANAGEMENT AND SAFETY (FMS)

Follow-up evaluation highlights

There are no internal laws or regulations developed by NMMC for facility safety and management. The center does comply with a number of limited regulations enforced by state agencies. The planning for facility management and safety is not very effective and is problem driven rather than preventative. An improvement was noted in that currently security officers are present at the center 24 hours during day, 7 days a week. Fire extinguishers are placed at each storeroom but there is no fire alarm system. There is no safety exit plan in case of fire or other emergencies. The state fire agencies provide checks (fire extinguishers, etc) once each trimester and make recommendations for NMMC to improve fire safety. There is no written plan on the response of the center to disasters, fires, epidemics, etc. Staff training on their role in emergency situations organized by the Civil Defense Department is rare and staff attendance is low. Smoking is prohibited in all patient care areas but permitted in other areas within the facility. In cases of central water system or electricity provision failure, the center has alternate resources of water and power. Utility systems are regularly checked. The medical supplies are kept in reserve by the Inventory department. Clinical staff members have communication means (pagers or mobile phones). Staff of specific departments manage hazardous materials according to their knowledge and experience (no listing, no labeling). Waste (mainly dry waste) is moved to an outside crematorium in plastic bags. There is no written plan for the management and maintenance of medical equipment. Bioengineers are responsible for equipment checks upon arrival and occasionally thereafter (the frequency is not defined).

The following measures are recommended to improve facility safety at NMMC:

- Develop internal regulations for facility management and safety;
- Develop a documented plan for effective management of the facility;
- Construct universal alarm system responding to fire/smoke;
- Develop an evacuation plan for NMMC and organize regular checks of the plan;
- Assess and reinforce of the educational needs of staff involved in facility management and safety;
- Development of plan for the management and maintenance of medical equipment;
- Develop of a database in the bioengineering department (including the list of all equipment, description, frequency checks, character of maintenance, etc);
- Organize training for clinical staff on appropriate operation and maintain medical equipment at admission and regularly thereafter;
- Develop a plan for organizing formal training on facility response to fire, disasters, and other emergency situations and periodically check the response;
- Develop a plan for the inventory, handling, storage, use of hazardous materials, and the control and disposal of hazardous materials and waste;
- Revise the liquid waste management strategy at NMMC;
- Develop a list of all hazardous materials at NMMC, instructions for their storage and handling, and a labeling system with notes of precaution;
- Test the staff knowledge on their role in facility safety management and documenting results.

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FACILITY MANAGEMENT AND SAFETY (FMS)				
Standard #	**Standard**	**Measurable Element** (# of measurable element)	**Evaluation Score**	
			2000	**2005**
FMS.1	The organization complies with relevant laws, regulations and facility inspection requirements.	(1) The organization leaders know what laws, regulations, and other requirements apply to the organization's facilities.	3	3
		(2) The leaders implement the applicable requirements or approved alternatives.	3	3
		(3) The leaders ensure the organization meets the condition of facility inspection reports or citations.	3	3
FMS.1.1	The organization plans and budgets for upgrading or replacing key systems, building, or components.	The organization plans and budgets for upgrading or replacing the systems, building, or components needed for the continued operation of a safe and effective facility.	4*	3
FMS.3.1	The plan includes prevention, early detection, suppression, abatement and safe exit from the facility in response to fires and non-fire emergencies.	(1) The program includes the reduction of fire risks.	3	3
		(3) The program includes the early detection of fire and smoke.	3	3
		(4) The program includes the abatement of fire and containment of smoke.	4*	3
		(5) The program includes the safe exit from the facility when fire and non-fire emergencies occur.	3	3
FMS.3.2	The organization regularly tests its fire and smoke safety plan, including any devices related to early detection and suppression, and documents the results.	(1) Fire detection and abatement systems are inspected, tested, and maintained at a frequency determined by the organization.	N/A	1
		(2) The fire and smoke safety evaluation plan is tested at least twice per year.	1	1
		(3) Staff is trained to participate in the fire and smoke safety plan.	1	1
		(5) Inspection, testing and maintenance of equipment and systems are documented.	1	1
FMS.3.3	The organization develops and implements a plan to limit smoking by staff and patients to designated not patient care areas of the facility.	(1) The organization has implemented a policy and plan to eliminate and limit smoking.	3	3
		(2) The plan applies to patients, families, visitors and staff.	3	3

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FACILITY MANAGEMENT AND SAFETY (FMS)				
Standard #	**Standard**	**Measurable Element** (# of measurable element)	**Evaluation Score**	
			2000	**2005**
		(3) There is a process to grant patient exceptions to the plan.	3*	2
FMS.4	The organization develops a plan to respond to likely community emergencies, epidemics, and natural or other disasters.	The organization plans its response to likely community emergencies, epidemics, and natural or other disasters.	2	2
FMS.4.1	The organization has tested its response to emergencies, epidemics and disasters.	The plan is tested.	1	1
FMS.4.2	The organization has access to any medical supplies, communication equipment and other materials to support its response to emergencies, epidemics and disasters.	(1) Medical supplies are available in emergencies.	4*	3
		(2) Communication equipment is available in emergencies.	4	4
FMS.5	The organization has a plan for the inventory, handling, storage and use of hazardous materials and the control and disposal of hazardous materials and waste.	(1) The organization identifies hazardous materials and waste.	3	3
		(2) Hazardous materials and waste are managed according to the plan.	N/A	N/A
		(3) The plan includes safe handling, storage and use.	4*	3
		(4) The plan includes reporting and investigation of spills, exposures and other incidents.	3*	1
		(5) The plan includes the proper disposal of hazardous waste.	3*	2
		(8) The plan includes labeling hazardous materials and waste.	4*	1
FMS.6	One or more qualified individuals oversee the planning and implementation of the program to provide a safe and effective physical facility.	(1) The program oversight and direction are assigned to one or more individuals.	4*	3
		(2) The individual(s) is qualified by experience and training.	4*	3
FMS.7	The organization plans and implements a program for inspecting, testing, and maintaining medical equipment and documenting results.	(1) Medical equipment is managed throughout the organization according to the plan.	2	2
		(2) There is an inventory of all medical equipment.	2	2
		(3) Medical equipment is regularly inspected.	4*	3

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FACILITY MANAGEMENT AND SAFETY (FMS)				
Standard #	**Standard**	**Measurable Element** (# of measurable element)	**Evaluation Score**	
			2000	**2005**
		(4) Medical equipment is tested when new and as appropriate thereafter.	4*	3
		(5) There is a preventive maintenance program.	2	2
FMS.8	Potable water and electrical power are available 24 hours a day, seven days a week, through regular or alternate sources, to meet essential patients care needs.	(1) Potable water is available 24 hours a day, seven days a week.	4	4
		(2) Electric power is available 24 hours a day, seven days a week.	4	4
FMS.9	Electrical, water, waste, ventilation, medical gas and other key systems are regularly inspected, maintained, and when appropriate improved.	(1) Utility systems are regularly inspected.	4	4
		(3) Utility systems are regularly maintained.	4	4
FMS.9.1	Designated individuals or authorities monitor water quality regularly.	(1) Water quality is monitored regularly.	4	4
		(2) An individual(s) or agency is assigned responsibility for monitoring.	4	4
FMS.10	The organization educates and trains all staff members about their roles in providing a safe and effective patient care facilities.	For each component of the organization's facility management and safety program there is a planned education to ensure that staff members can effectively carry out their responsibilities.	3*	2
FMS.10.1	Staff members are trained and knowledgeable about their roles in the organization's plans for their fire safety, security, hazardous materials and emergencies.	(1) Staff members can describe and/or demonstrate their role in the response to a fire.	2	2
		(4) Staff members can describe and/or demonstrate procedures and their role in internal and community emergencies and disasters.	2	2
FMS.10.2	Staff is trained to operate and maintain medical equipment and utility systems.	(1) Staff is trained to operate medical equipment.	4*	3
		(2) Staff is trained to maintain medical equipment.	3*	2
FMS.10.3	The organization periodically tests staff knowledge through demonstration, mock events, and other suitable methods. This testing is then documented.	(1) Staff knowledge is tested regarding their role in maintaining a safe and effective facility.	2	2
		(2) Staff training and testing are documented as to who was trained and tested and the results.	1	1

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FUNCTION: GOVERNANCE, LEADERSHIP, AND DIRECTION (GLD)

Follow-up Evaluation Highlights

For the purpose of the follow-up evaluation organization governance will be identified as the Chief Director and the Hospital Board. Although NMMC is a state-owned facility, the municipality of Yerevan provides little technical oversight of daily operations, finances, strategic planning, and management. The municipality does receive quarterly and annual financial reports, staff lists, budgets, salaries, and operating plans that require formal approval. This process of approval tends to be a formality, as the municipality and owner of the organization do not actively participate in the formulation of the mission, objectives, strategic plan, operating capacity, or budget. The Hospital Board and the Chief Director, Lida Mouradian, are responsible for managing the daily operations and coordinating administrative and clinical services at NMMC. In relation to the standards and measurable elements of the function of Governance, Leadership, and Direction, the role of governance will be applied to the internal Hospital Board rather than the municipality of Yerevan, the Mayor, or the Ministry of Health.

Since the baseline evaluation the so-called "Politburo" committee has been replaced by two different committees: the Hospital Board and the Medical Board. The Medical Board oversees clinical services and the provision of health care. The Hospital Board is the lead governing body of NMMC and is responsible for providing direction for NMMC and establishing strategies for development of the organization. Both groups work in a collaborative manner to identify problems, assess available resources, and formulate possible solutions. Policies and accountabilities of each group have been defined in writing and an organizational chart has also been drafted.

Human resources issues have been addressed through the creation of job descriptions, developed in collaboration with AUA project coordinators, for all positions within NMMC. Job descriptions have yet to be discussed and approved by the Hospital Board. Recruitment, hiring, probation, evaluation, and dismissal procedures have been documented and are universal with some variation in position-specific policies.

The following measures are recommended to improve the direction of services at NMMC:

- Develop a complete and finalized organizational chart including the names of leadership and Board members;
- Develop/adopt an organization-wide mission statement, package of services, and operating procedure;
- Document department policies, responsibilities, and services offered;
- Establish an in-house QA/QI committee or authority responsible for systematic evaluation of the care delivered;
- Adopt a written, universal training and orientation procedure for new staff;
- Establish a Nursing board to ensure greater activity among nursing staff in QA/QI;
- Establish a formal and enforced requirement for continuing education;
- Document the integration of services and management of patients throughout the organization.

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GOVERNANCE, LEADERSHIP, AND DIRECTION (GLD)				
Standard #	**Standard**	**Measurable Element** (# of measurable element)	**Evaluation Score**	
			2000	**2005**
GLD.1	Governance responsibilities and accountabilities are described in bylaws policies and procedures, or similar documents that guide how they are to be carried out.	(1) The organization's governance structure is described in written documents.	4*	4
		(2) Governance responsibilities and accountabilities are described in the document.	4*	4
		(3) There is an organization chart or document.	1	3
		(4) Those responsible for governing and managing are identified by title or name.	3	4
GLD.1.1	Those responsible for governance approve the organization's mission statement.	Those responsible for governance approve the organization's mission.	1	2
GLD.1.2	Those responsible for governance approve the policies and plans to operate the organization.	Those responsible for governance approve the organization's strategic and management plans and operating policies.	1	3
GLD.1.3	Those responsible for governance approve the budget and allocate the resources required to meet the organization's mission.	(1) Those responsible for governance approve the organization's budget.	2	3
		(2) Those responsible for governance allocate the resources required to meet the organization's mission.	2	3
GLD.1.4	Those responsible for governance appoint the organization's senior manager(s) or director(s).	Those responsible for governance appoint the organization's senior manager or leader.	3	4
GLD.1.5	Those responsible for governance support and promote quality management and improvement efforts.	Those responsible for governance support and promote quality management and improvement.	2	3
GLD.1.6	Those responsible for governance collaborate with the organization's managers and leaders.	Those responsible for governance use processes that provide communication and cooperation between governance and management.	2	4
GLD.2	A senior manager or director is responsible for operating the organization and complying with applicable laws and regulations.	(1) The senior manager or director manages the organization's day-to-day operations.	4	4
		(2) The senior manager or director has the education and experience to carry out his or her responsibilities.	4	4
		(4) The senior manager or director carries out approved policies.	4	4

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GOVERNANCE, LEADERSHIP, AND DIRECTION (GLD)				
Standard #	**Standard**	**Measurable Element** (# of measurable element)	**Evaluation Score**	
			2000	**2005**
GLD.2	A senior manager or director is responsible for operating the organization and complying with applicable laws and regulations	(5) The senior manager or director ensures compliance with applicable laws and regulations.	4	4
		(6) The senior manager or director responds to any reports from inspecting and regulatory agencies.	4	4
		(7) The senior manager or director manages human, financial and other resources.	4	4
GLD.3	The organization's clinical and managerial leaders are identified and are collectively responsible for defining the organization's mission and creating the plans and policies needed to fulfill the mission.	(1) The leaders of the organization are formally or informally identified.	4	4
		(2) The leaders are collectively responsible for defining the organization mission.	4	4
		(3) The leaders are responsible for creating the policies and procedures necessary to carry out the mission.	4	4
		(4) The leaders work collaboratively to carry out the organization's mission and policies.	4	4
GLD.3.1	Organization leaders plan with the community leaders and leaders of other organizations to meet the community health care needs.	The organization's leaders plan with recognized community leaders.	N/A	3
GLD.3.2	The clinical leaders identify and plan for the type of services required to meet the needs of the patients served by the organization.	(1) The organization plans describe the care and services to be provided.	1	1
		(2) The care and services to be offered are consistent with the organization's mission.	4*	3
		(3) Clinical leaders determine the type of care and services to be provided by the organization.	4	4
GLD.3.4	The medical, nursing and other leaders are educated in concept of quality management and improvement.	(1) Medical, nursing and other leaders are educated in concept of quality management and improvement.	2	3
		(2) Medical, nursing and other clinical leaders participate in relevant quality management and improvement processes.	4*	3
GLD.3.5	Organization leaders ensure that there are uniform programs for	(1) There is a planned process for staff recruitment.	2	4

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GOVERNANCE, LEADERSHIP, AND DIRECTION (GLD)				
Standard #	**Standard**	**Measurable Element** (# of measurable element)	**Evaluation Score**	
			2000	**2005**
	there are uniform programs for the recruitment, and continuing education of the staff.	(2) There is a planned process for staff retention.	2	2

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GOVERNANCE, LEADERSHIP, AND DIRECTION (GLD)				
Standard #	**Standard**	**Measurable Element** (# of measurable element)	**Evaluation Score**	
			2000	**2005**
		(3) There is a planned process for staff personnel development and continuing education.	2	3
		(4) The planning is collaborative and includes all departments and services in the organization.	2	4
GLD.3.6	The leaders foster communication and coordination among those individuals and departments responsible for providing clinical services.	(1) Leaders foster communication among departments, services and individual staff members.	4	4
		(2) Leaders foster coordination of clinical services.	3	4
GLD.4	Medical, nursing and other clinical leaders plan and implement an effective organizational structure to support their responsibilities and authority.	There is an effective organizational structure used by medical, nursing and other Clinical leaders to carry out their responsibilities and authority.	1	3
GLD.4.1	The organizational structure and processes support professional communication.	The organizational structure and processes support professional communication.	4	4
GLD.4.3	The organizational structure and processes support the oversight of professional clinical issues.	The organizational structure(s) and processes support oversight of professional ethical issues.	2	3
GLD.4.4	The organizational structure and process support the oversight of the quality of clinical services.	The organizational structure(s) and processes support oversight of the quality of clinical services.	3	3
GLD.5	One or more qualified individuals provide direction for each department or service in the organization.	(1) An individual with appropriate training, education and experience directs each department or service in the organization.	3	4
		(2) When more that one individual provides direction the responsibilities of each are defined in writing.	3	3
GLD.5.1	Directors identify in writing the services to be provided by the department.	(1) Documents describe the services provided by each department or service.	1	3
		(2) Each department's or service's policies and procedures guide the provision of identified services.	1	1
		(3) Each department's or service's policies and procedures address the staff knowledge and skills needed to assess and meet patient needs.	1	2

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GOVERNANCE, LEADERSHIP, AND DIRECTION (GLD)				
Standard #	**Standard**	**Measurable Element** (# of measurable element)	**Evaluation Score**	
			2000	**2005**
GLD.5.1.1	Services are coordinated and integrated within the department or services and with other departments and services.	(1) There is coordination and integration of services within each department and service.	4	4
		(2) There is coordination and integration of services with other departments and services.	4	4
GLD.5.2	Directors recommend space, staffing and other resources needed by the department or service.	(1) Directors recommend staff needed to provide services.	4	4
		(2) Directors recommend other special resources needed to provide services.	4	4
GLD.5.3	Directors recommend criteria for selecting the department or service's professional staff and choose individuals who meet those criteria.	The director develops and when required, submits for endorsement criteria related to education, skills knowledge and experience of professional staff.	2	3
GLD.5.4	Directors provide orientation and training for all staff of department or service.	The director has established an orientation for department staff.	2	2

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FUNCTION: MANAGEMENT OF INFORMATION (MOI)

Follow-up Evaluation Highlights

The information requirements of clinical and management services at NMMC are planned based on the needs assessment and appropriate strategies are implemented to meet those needs. A clinical record is completed for every patient assessed or treated. Clinical records contain sufficient information to support the diagnosis and justify the treatment. They contain information on the course and results of treatment. Physicians, nurses, residents, and fellows are verbally authorized to make entries into patient record, while a "case-manager" of a patient carries the responsibility for all entries. All care providers of a patient have access to his records. All records and information is retained at NMMC. Internal policies and processes ensure the confidentiality and security of data. Clinical and managerial data and information are integrated.

Since the baseline evaluation several improvements were noted in the field of information management. The ANP coordinators collaboratively with NMMC staff developed new structured encounter forms (SEFs) for ambulatory clinics and evaluated several times their completeness. Several new computerized databases were developed for different services (the admission, accountancy, blood bank, wound infection database, and appointment database in adult cardiology clinic, etc.). Recently ANP coordinators developed a new software for surgical and catheterization databases and planned to implement it during the next year. A EUROscore database was developed, which allows comparing the outcomes of surgical care over time and with outcomes of similar organizations. It is planned to develop also a computerized database for laboratories. Some departments were connected via network. The admission database involves unique identifiers for all inpatients, which are attached to all forms. The standardized codes for diagnosis and procedures are used in different services. The policy and procedure on "Provision and Use of Data" and "Patient and Family Rights" were developed by ANP coordinator and approved by Hospital board. The policies and procedures regulate the security, confidentiality, and conditions for accessing the individual and aggregate patient data at NMMC. An appointment of single person/department responsible for database management was planned/approved by Hospital board. The training on basic computer knowledge is planned for nurses.

Based on the follow-up evaluation the following recommendations are made:

- Develop a written plan for information management detailing tasks, timeframes and people responsible for its implementation;
- Develop a policy identifying individuals who are authorized to make entries in patient records and establish a process to ensure that only authorized individuals make entries in the records;
- Define unnecessary data and establish a process for destroying those data;
- Increase the enforcement of existing policies and establish new ones to ensure the security and confidentiality of patient information;
- Improve the recording of course and result of treatment by modifying patient histories and follow-up forms into more structured and more informative forms; allocate special space for justification of treatment;
- Develop a process for record evaluation and enforce better recording;
- Change the attitude of staff toward recording, emphasizing its importance and value;
- Use collected data more effectively: to make assumptions on the performance of the center, to evaluate the quality of care, and to make comparisons with similar institutions;
- Adopt and use evidence-based practice guidelines during daily practice, to standardize the process of treatment at NMMC and facilitate the evaluation of provided care;
- Improve the conditions in paper data archives, to prevent data from loss and destruction.

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MANAGEMENT OF INFORMATION (MOI)				
Standard #	**Standard**	**Measurable Element** (# of measurable element)	**Evaluation Score**	
			2000	**2005**
MOI.1	The organization plans and implements processes to meet patient needs of all those who provide clinical services, those who manage the organization, and those outside the organization who require data and information from the organization.	(2) The information needs of those who provide clinical services are considered in the planning process.	4	4
		(3) The information needs of those who manage the organization are considered in the planning process.	4	4
		(4) The information needs and requirements of individuals and agencies outside the organization are considered in the planning process.	4	4
MOI.1.1	The organization has planned to meet information needs.	An information plan is developed and implemented in the organization.	2	3
MOI.1.2	The plan is based on an assessment of the needs of those within and outside the organization.	(1) Strategies are implemented to meet information needs of those who provide clinical services.	4	4
		(2) Strategies are implemented to meet information needs of those who manage the organization.	4	4
MOI.1.4	The plan includes how the confidentiality, security, and integrity of data and information will be maintained.	(1) The plan includes how confidentiality of data and information will be maintained.	2	3
		(2) The plan includes how security of data and information will be maintained.	3	3
		(3) The plan includes how the integrity of data and information will be maintained.	3	3
MOI.1.5	The plan defines the level of security.	(1) The plan identifies the level of security for each category of data and information.	3*	3
		(2) The plan identifies those who have need or job position that permits access to each category of data and information.	3*	3
MOI.1.5.1	Organization policy identifies those authorized to make entries in the patient medical record and determines the record's content and format.	Those authorized to make entries in the patient clinical record are identified in organization policy.	3	3

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MANAGEMENT OF INFORMATION (MOI)				
Standard #	**Standard**	**Measurable Element** (# of measurable element)	**Evaluation Score**	
			2000	**2005**
MOI.1.5.2	Only authorized providers make entries in the patient clinical record.	There is a process to ensure that only authorized individuals make entries in patient clinical records.	2	2
MOI.1.6	The organization has a policy on the retention time of records, data, and information.	(1) The organization has a policy on retaining patient clinical records and other data and information.	2	2
		(2) The retention process provides expected confidentiality and security.	3	3
		(3) Records, data, and information are destroyed appropriately.	N/A	1
MOI.1.7	The plan is implemented and supported by sufficient staff and other resources.	Sufficient staff support the implementation.	4*	3
MOI.1.8	The organization uses standardized diagnosis codes, procedure codes, symbols, and definitions.	Standardized diagnosis codes are used.	4*	3
MOI.1.9	The data and information needs of those in and outside the organization are met on a timely basis in a format that needs user expectations and with the desired frequency.	(1) Data and information dissemination meets user needs.	4	4
		(2) Users receive data and information on a timely basis.	4	4
		(3) Users receive data in a format that aids its intended use.	4	4
MOI.1.10	Appropriate clinical and managerial staff participates in selecting, integrating, and using information management technology.	(1) Clinical staff participates in information technology decisions.	4	4
		(2) Managerial staff participates in information technology decisions.	4	4
MOI1.12	Records and information are protected from loss, destruction, tampering, and unauthorized access or use.	(1) Records and information are protected from loss and destruction.	3	3
		(2) Records and information are protected from tampering and unauthorized access or use.	3	4
MOI.1.13	Clinical and managerial information is integrated to support the organization's governance and leadership.	Clinical and managerial data and information are integrated as needed to support decision-making.	4*	3

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MANAGEMENT OF INFORMATION (MOI)				
Standard #	**Standard**	**Measurable Element** (# of measurable element)	**Evaluation Score**	
			2000	**2005**
MOI.1.14	Decision-makers and other appropriate staff members are educated and trained in the principles of information management.	The education is appropriate to needs and job responsibilities.	4*	3
MOI.2	The organization initiates and maintains a clinical record for every patient assessed or treated.	A clinical record is initiated for every patient assessed or treated by the organization.	4	4
MOI.2.1	The clinical record contains sufficient information to identify the patient, support the diagnosis, justify the treatment, document the course and results of treatment, and promote continuity of care among health care providers.	(1) Patient clinical records contain adequate information to identify the patient.	4	4
		(2) Patient clinical records contain adequate information to support the diagnosis.	4	4
		(3) Patient clinical records contain adequate information to justify the care and treatment.	2	3
		(4) Patient clinical records contain adequate information to document the course and results of treatment.	3	3
		(5) The specific content of patient clinical records has been determined by the organization.	4	4
MOI.2.1.1	The clinical record of every patient receiving emergency care include the time of arrival, the conclusions at termination, the patient's condition at discharge, and follow-up care instructions.	(1) The clinical records of emergency patients include arrival time.	4	4
		(2) The clinical records of emergency patients include conclusions at the termination of treatment.	4	4
		(3) The clinical records of emergency patients include the patient's condition at discharge.	4	4
		(4) The clinical records of emergency patients include any follow-up care instructions.	4	4
MOI.2.2	As part of its performance improvement activities, the organization regularly assesses patient clinical record content and the completeness of patient clinical records.	(1) Patient clinical records are reviewed regularly.	1	2
		(2) The review focuses on the timeliness legibility, and completeness of the clinical record.	N/A	2

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MANAGEMENT OF INFORMATION (MOI)				
Standard #	**Standard**	**Measurable Element** (# of measurable element)	**Evaluation Score**	
			2000	**2005**
MOI.2.3	Health care providers have access to the information in a patient's clinical record each time the patient is seen for a new or continuing care episode.	Care providers have access to the patient's clinical record each time the patient is seen for care or treatment.	4	4
MOI.3	Aggregate data and information support patient care, organization management and the quality management program.	(1) Aggregate data and information support patient care.	4*	3
		(2) Aggregate data and information support organization management.	4*	3
MOI.3.2	The organization supports patient care, education, research, management with timely information from current sources.	(1) Current scientific and other information supports patient care.	1	3
		(2) Current scientific and other information supports clinical education.	4	4
		(3) Current scientific and other information supports research.	4	4
		(4) Current professional and other information supports management.	1	3
MOI.3.2.2	The organization uses external reference databases for comparative purposes.	The organization compares its performance using external reference databases.	4*	2

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FUNCTION: PREVENTION AND CONTROL OF INFECTIONS (PCI)

Follow-up Evaluation Highlights

A comprehensive infection control program (ICP) has been established at NMMC. The Infection Control Committee, consisting of qualified and experienced members, coordinates this program. In order to minimize the incidence of nosocomial infections at NMMC, modern techniques and materials for disinfection and sterilization are used. The committee developed numerous guidelines on appropriate infection control practices. The Infection Control Committee identifies sites from which specimens are to be collected and the frequency of collection. Nosocomial infection risks, rates and trends are tracked through computerized databases. The Infection Control Committee develops or modifies its strategies based on the acquired data on rates, trends and susceptibility of infection. The results of infection control monitoring are regularly presented to staff during presentations, educational sessions, and via printed reports available for all staff members. The Infection Control Committee provides continuous education for nurses, aides, residents/fellows and also orientation for nurses toward infection control practices prior to employment at NMMC. All staff at NMMC is oriented to the policies, procedures, and practices of the ICP during regular presentations and educational sessions and on new infection control policies and procedures and significant trends in infection data at monthly or specially organized presentations.

The following measures are recommended to improve the infection control practices at NMMC:

- Renovate the central sterilization department to correspond to recent standards and make it possible to achieve sterilization within the area;
- Establish better ventilation system in OR and special ICU ward for communicable diseases;
- Establish a filter and procedures to restrict the movement of staff to and from the OR during surgery;
- Create guidelines for a number of practices and services;
- Motivate self-control and control by peers to support appropriate infection control practices;
- Track the rates of all nosocomial infections and improve the recording of clinical manifestations of nosocomial infections;
- Organize special presentations of infection monitoring results for nurses;
- Organize structured education on infection prevention for patients and family members;
- Establish a formal, structured process of staff orientation on infection control practices prior to employment at NMMC.

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PREVENTION AND CONTROL OF INFECTIONS (PCI)				
Standard #	**Standard**	**Measurable Element** (# of measurable element)	**Evaluation Score**	
			2000	**2005**
PCI.1	The organization designs and implements a coordinated program to reduce the risks of nosocomial infectious in patients and health care workers.	(1) There is a program to reduce the risk of nosocomial infections in patients and health care workers.	3	4
PCI.1.1	All patient, staff, and visitor areas of the organization are included in the infection control program.	(1) All areas of the organization are included in the infection control program.	3	3
PCI.2	The organization establishes the focus on the nosocomial infection prevention and reduction program.	(1) The organization has established the focus of the program to prevent or reduce the incidence of nosocomial infections.	4	4
		(2) Respiratory tract infections are included as appropriate to the organization.	4	4
		(4) Intravascular invasive devices are included as appropriate to the organization.	4	4
		(5) Surgical wounds are included as appropriate to the organization.	4	4
PCI.3	The organization identifies the procedures and processes associated with the risk of infection and implements strategies to reduce infection risk.	(1) The organization has identified those processes associated with infection risk and implemented strategies to reduce infection risk in those processes.	4	4
		(2) Equipment cleaning and sterilization are included as appropriate to the organization.	4	4
		(3) Laundry and linen management are included as appropriate to the organization.	4	4
		(4) Disposal of infectious waste and body fluids is included as appropriate to the organization.	4	4
		(5) The handling and disposal of blood and blood components are included as appropriate to the organization.	4	4
		(6)Kitchen sanitation and food preparation and handling are included as appropriate to the organization.	4	4

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PREVENTION AND CONTROL OF INFECTIONS (PCI)				
Standard #	**Standard**	**Measurable Element** (# of measurable element)	**Evaluation Score**	
			2000	**2005**
		(7) Operation of the mortuary and post-mortem area are included as appropriate to the organization.	N/A	N/A
		(8) Disposal of sharps and needles is included as appropriate to the organization.	4	4
		(10) The management of the hemorrhagic patients is included as appropriate to the organization.	4	4
PCI.4	Gloves, mask, soap, and disinfectants are available and used correctly when required.	(1) The organization identifies those situations for which gloves and/or masks are required.	4	4
		(3) The organization identifies those areas where hand washing and disinfecting procedures are required.	4	4
PCI.5	Cultures are routinely obtained from designed sites in the organization associated with significant infection risk.	(1) The organization identifies those sites from which specimens are to be collected and the frequency of the collection from each site.	4	4
		(2) Specimens are routinely collected.	4	4
PCI.6	One or more individuals oversee all infection control activities.	(1) One or more individuals oversee the infection control program.	3	4
		(2) The individuals are qualified for the scope and complexity of the program.	2	4
PCI.8	Coordination of infection control activities involves medicine, nursing, and others as appropriate to the organization.	(1) Coordination of infection control activities involves medicine.	4	4
		(2) Coordination of infection control activities involves nursing.	4	4
PCI.9	The infection control program is based on current scientific knowledge, accepted practice guidelines, and applicable laws and regulations.	(1) The infection control program is based on current scientific knowledge.	4	4
		(2) The infection control program is based on accepted practice guidelines.	1	3
		(3) The infection control program is based on applicable laws and regulations.	4	N/A
PCI.10	Organization information management systems support the infection control program.	(1) Information management systems support the infection control program.	4	4

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PREVENTION AND CONTROL OF INFECTIONS (PCI)				
Standard #	**Standard**	**Measurable Element** (# of measurable element)	**Evaluation Score**	
			2000	**2005**
PCI.11	The infection control process is integrated with the organization's overall program for quality management and improvement.	(1) Infection control activities are integrated into the organization's quality management and improvement program.	2	4
PCI.11.1	The organization tracks infection risks, infection rates, and trends in nosocomial infections.	(1) Nosocomial infection risks are tracked.	4	4
		(2) Nosocomial infection rates are tracked.	4	4
		(3) Nosocomial infection trends are tracked.	4	4
PCI.11.3	The organization uses risk, rate, and trend information to design or modify processes to reduce nosocomial infections to the lowest possible level.	(1) Processes are redesigned based on risk, rate and trend data and information.	4	4
		(2) Processes are redesigned to reduce infection risk to the lowest levels possible.	4	4
PCI.11.4	The organization compares its infection control rates with other organizations through comparative databases.	(1) Infection control rates are compared to other organizations' rates.	2	2
PCI.11.5	The results of infection monitoring in the organization are regularly communicated to staff, doctors and management.	(1) Monitoring results are communicated to the medical staff.	2	4
		(2) Monitoring results are communicated to nursing staff.	2	3
		(3) Monitoring results are communicated to management.	4	4
PCI.11.6	The organization reports information on infections to appropriate external public health agencies.	(1) Infection control results are reported to public health agencies as required.	N/A	N/A
PCI.12	The organization provides education on infection control practices to staff, doctors, patients, and as appropriate, family and other care givers.	(1) The organization provides education about infection control program.	2	3
		(2) Medical, nursing and other professional staff are included in the program.	2	4
		(3) Patients and families are included when appropriate to the patient's needs and condition.	4*	3
PCI.12.1	All staff receives an orientation to the organization's infection control program.	(1) All staff is oriented to the policies, procedures, and practices of the infection control program.	3	4

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PREVENTION AND CONTROL OF INFECTIONS (PCI)				
Standard #	**Standard**	**Measurable Element** (# of measurable element)	**Evaluation Score**	
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PCI.12.2	All staff is educated in infection control when new policies are implemented and when significant trends are noted in surveillance data.	(1) Periodic staff education includes new policies and procedures.	1	4
		(2) Periodic staff education is in response to significant trends in infection data.	1	4

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FUNCTION: QUALITY MANAGEMENT AND IMPROVEMENT (QMI)

Follow-up evaluation highlights

A collaborative "Quality Assurance" project (venture initiative of American University of Armenia and Nork-Marash Medical center) has functioned at NMMC since 2001. Managerial bodies (Hospital board and Medical board) responsible for shaping quality assurance activities were created. However, the current quality assurance activities are more problem driven than planned. Moreover, the quality assurance activities are not very evenly distributed throughout the institution, reflecting the priorities of clinical and managerial leadership. The quality improvement activities do not necessarily follow the sequence of basic steps. The "Quality Assurance" project coordinators evaluated different indicators in various departments, however few of the suggested recommendations were implemented.

An improvement in quality assurance activities was noted in infection control, laboratory tests, and in the blood bank. The use of blood products and quality control in laboratories has been monitored. Managerial indicators such as financial management and procurement of supplies have received more attention during the last few years. New accounting software allows for the production of reliable figures of incomes and expenditures at NMMC.

The infection control activities have improved significantly during the last five years. The EUROscore was calculated for all surgical patients, which allows the comparison of results of surgical procedures at NMMC with international data taking into account the patient case mix. Continuous quality control has been implemented in the laboratories of NMMC since the baseline survey. The quality of tests is checked with standard solutions and with defined frequency. Standard operating procedures (SOPs) were developed for all laboratory tests by laboratory staff and "Quality Assurance" project coordinators. The Blood bank at NMMC has a well established and regular quality control procedure that was developed based on the standards of the American Association of Blood Banks. NMMC recently contracted a US organization that provides NMMC with badges and measures the occupational exposure of staff exposed to ionizing radiation.

Since the baseline survey structured encounter forms (SEFs) were developed and implemented in the Adult and Pediatric cardiology clinics, and the catheterization laboratory. The completed forms are kept in the archive and a part of the form is entered into databases (Adult cardiology, Pediatric cardiology database). Several other databases were created in different service departments of NMMC (admission, bacteriology database, surgical, blood bank, catheterization laboratory databases). Thus, patient information may be extracted from different sources: computerized databases, SEFs, and patient history. The Medical board, with the help of "Quality Assurance" project coordinators, developed policies and procedures for providing patient data to external and internal users.

As a risk management initiative the "Incidence Report" form was developed and implemented in 2004. This form was created to address incidents that could alter the quality of patient care at NMMC.

An Inventory management department was created to coordinate the procurement, distribution, and monitoring of supplies. The personnel of the department monitors supplies daily to assure supplies are stocked to required levels. The data on procured and used supplies and materials are entered into a computerized database and monthly reports are submitted to the financial department.

The following measures are recommended to improve the QMI practices at NMMC:

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- Develop a written “quality assurance” plan outlining activities on a quarterly or annual basis and follow-up of plan implementation;
- Assure quality improvement activities that are all-inclusive and organization-wide (all services and departments);
- Provide activities that follow the quality monitoring cycle that has 5 sequential main steps: 1. Obtaining data on performance; 2. Pattern analysis; 3. Interpretation, which means advancing hypotheses that might explain the patterns observed; 4. Taking preventive, corrective, or promotive action based on the causal hypotheses; 5. Obtaining data on subsequent performance to determine what the consequences of the actions taken have been;
- Assign a person with enough authority or a group of people responsible for carrying out QMI activities;
- Create a single body (e.g. quality assurance committee) responsible for collecting, analyzing and reporting the institutional data and communicating QMI results to staff, or assign the responsibility to existing boards or committees;
- Hire a specialist (as a new position, or as a consultant) that may supervise and coordinate regular radiation control at NMMC (control over equipment, evaluation of radiation levels, evaluation of the condition of personal safety devices, equipment testing before use and regularly thereafter);
- Provide continuously badges and record occupational exposure for all staff members working with ionizing radiation;
- Make the archives (Adult cardiology clinic, general archive of patients' histories) well-organized and well-ordered;
- Develop a purchasing budget in the Inventory management department;
- Implement stricter cost-control measures over the expenses of all departments;
- Make requirements regarding the frequency of data analysis at NMMC for different services and types of data;
- Establish formal criteria and guidelines for patient assessment and monitoring actual performance based on the criteria and guidelines;
- Redesign the incidence reporting system at NMMC and develop other activities to manage the risk of patients, family members, and staff.

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QUALITY MANAGEMENT AND IMPROVEMENT (QMI)				
Standard #	**Standard**	**Measurable Element (# of measurable element)**	**Evaluation Score**	
			2000	**2005**
QMI.1	Those responsible for governing and leading the organization participate in planning and monitoring a quality management and improvement program.	Those who govern and lead participate in planning and monitoring the quality management and improvement program.	2	3
QMI.1.1	The organization's clinical and managerial leaders collaborate to plan and carry out the quality management and improvement program.	(1) Clinical leaders participate to plan and carry out the quality management and improvement program.	3	3
		(2) Managerial leaders participate to plan and carry out the quality management and improvement program.	2	3
QMI.1.1.1	There is a written plan for the organization wide quality management and improvement program.	There is a written plan for the quality management and improvement program.	1	1
QMI1.1.2	The program includes all components of the organization's quality monitoring and control activities, including risk management.	The program includes all components of the organization's quality monitoring and control activities.	2	2
QMI.1.3	The leaders provide technological and other support to the quality management and improvement program.	(1) The leaders understand the technology and other support requirements for tracking and comparing monitoring results.	4*	3
		(2) The leaders provide technology and support, consistent with the organization's resources, for tracking and comparing monitoring results.	4*	3
QMI.1.4	The quality management and improvement program is coordinated, and program information is communicated to staff.	(1) The organization's quality management and improvement program is coordinated	2	3
		(2) Information on the program is communicated to staff regularly.	2	3
QMI.2	The organization designs new and modified systems and processes according to quality improvement principles.	Quality improvement principles and tools are applied to the design of new or modified processes.	3*	3
QMI.2.2	The organization sets expectations for how new and modified processes should operate.	Indicators are selected to measure how well the newly designed or redesigned process operates.	3*	2

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Standard #	**Standard**	**Measurable Element (# of measurable element)**	**Evaluation Score**	
			2000	**2005**
QMI.2.3	The organization collects data to see if new and modified processes meet operational expectations.	Indicator data used to evaluate the operation of the process.	4*	3
QMI.3	The organization's leaders identify key measures (indicators) to monitor the organization's clinical and managerial structures, processes, and outcomes.	(1) The leaders identify key measures to monitor clinical areas.	3*	3
		(2) The leaders identify key measures to monitor managerial areas.	2*	2
QMI.3.1	Clinical monitoring includes patient assessment.	Clinical monitoring includes patient assessment.	2	3
QMI.3.2	Clinical monitoring includes laboratory and radiology safety and quality control programs.	Clinical monitoring includes laboratory and radiology safety and quality control programs.	3*	3
QMI.3.3	Clinical monitoring includes surgical procedures.	Clinical monitoring includes surgical procedures.	4*	4
QMI.3.4	Clinical monitoring includes the use of antibiotics and other medications and medication errors.	Clinical monitoring includes the use of antibiotics and other medications and medication errors.	2	3
QMI.3.5	Clinical monitoring includes the use of anesthesia.	Clinical monitoring includes the use of anesthesia.	2	2
QMI.3.6	Clinical monitoring includes the use of blood and blood products.	Clinical monitoring includes the use of blood and blood products.	2	4
QMI.3.7	Clinical monitoring includes availability, content, and use of patient records.	Clinical monitoring includes availability, content, and use of patient records	2	3
QMI.3.8	Clinical monitoring includes infection control, surveillance, and reporting.	Clinical monitoring includes infection control, surveillance, and reporting.	4*	4
QMI.3.10	Managerial monitoring includes the procurement of routinely required supplies and medications essential to meet patient needs.	Managerial monitoring includes the procurement of routinely required supplies and medications essential to meet patient needs.	2	3
QMI.3.11	Managerial monitoring includes reporting of activities as required by law and regulation.	Managerial monitoring includes reporting of activities as required by law and regulation.	4	4

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QUALITY MANAGEMENT AND IMPROVEMENT (QMI)				
Standard #	**Standard**	**Measurable Element (# of measurable element)**	**Evaluation Score**	
			2000	**2005**
QMI.3.12	Managerial monitoring includes risk management.	Managerial monitoring includes risk management.	2	2
QMI.3.14	Managerial monitoring includes patient and family expectation and satisfaction.	Managerial monitoring includes patient and family expectation and satisfaction.	4*	4
QMI.3.16	Managerial monitoring includes patient demographics and diagnoses.	Managerial monitoring includes patient demographics and diagnoses.	4*	4
QMI.3.17	Managerial monitoring includes financial management.	Managerial monitoring includes financial management	2	3
QMI.3.18	Managerial monitoring includes the surveillance, control, and prevention of events that jeopardize the safety of patients, families, and staff.	Managerial monitoring includes the surveillance, control, and prevention of events that jeopardize the safety of patients, families, and staff.	2	2
QMI.3.19	Data collection supports further study of areas targeted for study and improvement.	Data collection is used to study areas targeted for improvement.	3*	3
QMI.3.20	Data collection supports evaluation of the effectiveness of implemented improvements.	Data collection is used to monitor and evaluate the effectiveness of improvements	3	3
QMI.4	Individuals with appropriate experience, knowledge, and skills systematically aggregate and analyze data in the organization.	(1)Data are aggregated, analyzed, and transformed into useful information	4*	3
		(2)Individuals with appropriate clinical or managerial experience, knowledge, and skills participate in the process.	4*	3
QMI.4.1	The frequency of data analysis is appropriate to the process being studied and meets organization requirements.	(1)The frequency of data analysis is appropriate to the process under study.	2	2
		(2)The frequency of data analysis meets organization requirements.	3	3
QMI.4.2	Data are intensively assessed when significant unexpected events and undesirable trends and variation occur.	(1)Intense analysis of data takes place when significant adverse levels, patterns, or trends occur.	4	4
		(2)The organization has established which events are significant.	3	3
		(3)The organization has established the process for intense analysis of these events.	3	3

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Standard #	**Standard**	**Measurable Element (# of measurable element)**	**Evaluation Score**	
			2000	**2005**
		(4)Significant events are analyzed when they occur.	4	4
QMI.4.3	The analysis process includes comparisons internally, with other organizations when available, and with scientific standards and desirable practices.	(1)Comparisons are made over time within organization.	4*	3
		(2)Comparisons are made with similar organizations when possible.	4*	3
		(3)Comparisons are made with standards when appropriate.	4*	3
QMI.4.4	Statistical tools and techniques suitable to the process or outcome under study are used.	Statistical tools and techniques are used in the analysis process when suitable.	3*	3
QMI.5	Improvement in quality is achieved and sustained.	(1) The organization uses a consistent process to plan and implement improvements.	2	2
		(2)The organization documents the improvements achieved and sustained.	1	1
QMI.5.1	Improvement activities are undertaken for the priority areas identified by the organization's leaders.	The priority areas identified by the organization's leaders are included in improvement activities.	4*	3
QMI.5.2	Assignments are made and support provided.	Those responsible for an improvement are assigned.	4*	3
QMI.5.3	Staff is trained, appropriate policy changes are made, and necessary resources are allocated.	(1)Policy changes necessary to plan and carry out the improvement are made.	4	4
		(2)Necessary resources are allocated.	3	3
QMI.5.4	Changes to improve are planned and tested.	(1)Changes are planned.	4*	3
		(2)Changes are tested.	4*	3
		(3)Changes that resulted in improvements are implemented.	4*	3
QMI.5.5	The organization collects data to show that the improvement was sustained.	Data are available to demonstrate that improvements are sustained.	4*	3
QMI.5.6	The organization documents its continuing, systematic improvement and uses the information to develop strategic improvement plans.	Successful improvements are documented.	2	2
		The documentation contributes to the development of strategic improvement plan.	1	1

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FUNCTION: STAFF QUALIFICATION AND EDUCATION (SQE)

Follow-up Evaluation Highlights

Policies and procedures for staff recruitment were developed by ANP and approved by the Hospital Board. The process of staff recruitment at NMMC is currently guided by these policies. There is a written staffing plan developed collaboratively by medical and administrative staff. The staffing plan is being revised as necessary. New positions are discussed by managerial bodies and approved by Hospital Board. Suggestions of specific departments, working hours' statistics, or adopted principles (e.g. patient and nurse ratio 1 to 1 at ICU) serve as the basis for making changes in the staffing plan.

"Quality assurance" subproject coordinators developed job descriptions for all positions at NMMC. However, these were not discussed and approved yet. The desired levels of education, skills, and knowledge are not yet specifically defined for each staff members. For medical positions, completion of special training/fellowship at NMMC is a general requirement for employment. Recently, in-service nurse training became a requirement for employment of nurses at NMMC. Licensure, education, and training of the staff are considered in accordance with the laws of RA. Lists of competencies were developed for cardiologists (adult, pediatric, arrhythmologist) defining the types of care where they could work independently (invasive/noninvasive cardiology, etc).

Continuous in-service education is organized at NMMC by the means of Monday conferences, journal clubs, mortality and morbidity conferences, infection control trainings and other educational courses. Regular education is provided by state agencies for physicians, nurses, and accountants. There is no process of regular staff performance evaluation at NMMC. The staff performance is evaluated informally after probation period. Unsatisfactory performance, when revealed, could initiate process of evaluation or discussion.

Human Resource (HR) department staff keeps standardized separate files for each staff member. Recently the data from files is entered into computerized database. The forms are current. The files for medical and nursing staff contain copies of documents verifying their education and training (diploma, certificate of postgraduate training, and fellowship at NMMC). Administrative leaders (director or human resource coordinator) carry out general orientation of a new staff member while the leader and staff of particular department perform specific orientation.

Following recommendations are made to improve the function of staff qualification & education:

- Adopt job descriptions for all positions at NMMC with further regular revisions;
- Adopt clear definitions for desired educational levels, skills, and knowledge for all positions (with inclusion in job descriptions);
- Develop a formal process of regular staff performance evaluation;
- Develop criteria for evaluation of staff qualification for all positions;
- Investigate regularly educational needs of all staff members, identify resources necessary to cover those needs (educators, time, materials, etc.); and allocate the necessary resources;
- Include all trainings and in-service education passed by each staff member in his/her personal file;
- Allocate equally educational activities to achieve more regular, structured, and organized process of staff education while providing space and time convenient for all staff members;
- Develop a formal process of staff orientation, which will include responsibilities of the staff who provides orientation and the list of the issues covered;
- Develop competency lists for all medical and nursing staff.

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STAFF QUALIFICATION AND EDUCATION (SQE)				
Standard #	**Standard**	**Measurable Element (# of measurable element)**	**Evaluation Score**	
			2000	**2005**
SQE.1	Organization leaders define the desired education, skills, knowledge, and other requirements of all staff members.	(2) The desired education, skills, and knowledge are defined for staff.	3	3
SQE.1.1	Each staff member's responsibilities are defined in a current job description.	(1) Those staff members not permitted to practice independently have a job description.	1	3
		(2) Job descriptions are current.	1	1
SQE.2	Organization leaders develop and implement processes for recruiting, evaluating, and appointing staff as well as other procedures identified by the organization.	(1) There is a process in place to recruit staff.	2	4
		(2) There is a process in place to evaluate the qualifications of new staff.	2	3
		(3) The process is implemented.	3	3
SQE.3.1	Each staff member's ability to carry out the responsibilities in his or her job description is evaluated at appointment and then regularly thereafter.	(1) New staff members are evaluated at the time they begin their work responsibilities.	2	3
		(2) There is at least one documented evaluation of staff each year or more frequently as defined by the organization.	1	1
SQE.3.2	There is documented personnel information for each staff member.	(1) Personnel information is maintained for each staff member.	4	4
		(2) Personnel files are standardized.	4	4
		(3) Personnel files are kept current.	1	4
		(4) Personnel files contain a record of in-service education attended by the staff member.	1	2
SQE.4	A staffing plan for the organization, developed collaboratively by the clinical and managerial leaders, identifies the number, types, and desired qualifications of staff.	(1) There is a written plan for staffing the organization.	1	4
		(2) The clinical and managerial leaders developed the plan collaboratively.	4	4
SQE.4.1	The staffing plan is reviewed on an ongoing basis and updated as necessary.	(1) The plan is revised and updated when necessary.	3	4
SQE.5	All staff members are oriented to the organization and to their specific job responsibilities at appointment to the staff.	(1) New staff members are oriented to the organization, job responsibilities, and their specific assignments.	3	3

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STAFF QUALIFICATION AND EDUCATION (SQE)				
Standard #	**Standard**	**Measurable Element (# of measurable element)**	**Evaluation Score**	
			2000	**2005**
SQE.6	Each staff member receives ongoing in-service and other education and training to maintain or advance his or her skills and knowledge.	(1) Organization staff is provided ongoing in-service education and training.	2	3
SQE.6.4	Staff is given the opportunity to participate in advanced education, research, and other educational experiences to acquire new skills and knowledge and to support job advancement.	(1) Staff is informed of opportunities to participate in advanced education, training, research, or other experiences.	1	3
		(2) The organization supports staff participation in such opportunities as appropriate to its mission and resources.	1	3
SQE.7	The organization has an effective process for gathering, verifying, and evaluating the credentials (license, education, training, and experience) of those medical staff permitted to provide patient care without supervision.	(1) Those permitted by law, regulation, and the organization to provide patient care without supervision are identified.	3	3
SQE.7.1	The organization maintains a record of the current professional license, certificate, or registration, when required by law, regulation, or by the organization, of every medical staff member.	(1) There is a record maintained for every medical staff member.	4	4
		(2) The record contains copies of any required license, certification, or registration.	4	4
SQE.7.2	The credentials of medical staff members are reevaluated at least every three years to determine their qualifications to continue to provide patient care services in the organization.	(1) There is a process to review each record every three years.	1	3

Evaluation Score:
1 = Standard not met; **2 =** Standard met minimally; **3 =** Standard met partially; **4 =** Standard met satisfactorily; **N/A =** Standard is not applicable to NMMC or cannot be measured from available information.
***** The score seems to be over-estimated at the baseline survey.
^ The score is underestimated at the baseline survey.

STAFF QUALIFICATION AND EDUCATION (SQE)				
Standard #	**Standard**	**Measurable Element (# of measurable element)**	**Evaluation Score**	
			2000	**2005**
SQE.8	The organization has an effective process to authorize all medical staff members to admit and treat patients and provide other clinical services consistent with their qualifications.	(1) There is a process to authorize the individual to admit and care for patients.	2	3
		(2) A medical staff member's licensure, education, training, and experience are used to authorize the individual to provide clinical services consistent with qualifications.	4	4
SQE.9	The organization has an effective process for medical staff participation in the organization's quality improvement activities, including evaluating individual performance, when indicated, and for periodically reevaluating the performance of all medical staff members.	(1) Medical staff members participate in the organization's quality improvement activities.	4*	4
		(2) The performance of individual medical staff members is reviewed periodically, as established by the organization.	2*	2
SQE.10.1	The organization maintains a record of the current professional license, certificate, or registration, when required by law, regulation, or the organization, of every nursing staff member.	(1) There is a record maintained on every nursing staff member.	4	4
SQE.11	The organization has an effective process to identify job responsibilities and make clinical work assignments based on the nursing staff member's credentials and any regulatory requirements.	(1) Licensure, education, training, and experience of a nursing staff member are used to make clinical work assignments.	4	4
SQE.12	The organization has an effective for nursing staff participation in the organization's quality improvement activities, including evaluating individual performance when indicated.	(1) Nursing staff participates in the organization's quality improvement activities.	4*	3
SQE.13.1	The organization maintains a record of the current professional license, certificate, or registration,	(1) The organization has a process in place to gather the credentials of other health professional staff members.	4	4

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STAFF QUALIFICATION AND EDUCATION (SQE)				
Standard #	**Standard**	**Measurable Element (# of measurable element)**	**Evaluation Score**	
			2000	**2005**
	when required by law or regulation, of those other health professional staff members.			

Evaluation Score:
1 = Standard not met; **2 =** Standard met minimally; **3 =** Standard met partially; **4 =** Standard met satisfactorily; **N/A =** Standard is not applicable to NMMC or cannot be measured from available information.
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