Development of the Society of Gastroenterology Nurses and Associates Minimum Data Set

An Evidence-Based Resource

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The Society for Gastroenterology Nurses and Associates (SGNA) has developed a Minimum Data Set identifying the essential elements necessary to document delivery of patient care in the gastrointestinal endoscopic setting. Standardized information, such as a minimum data set, for facilitating communication among practitioners is believed to enhance patient outcomes. The SGNA Minimum Data Set was developed for "public" use to facilitate quality patient outcomes and to enhance the education, research, and clinical practice of GI nurses. Data were collected from a cross-sectional representation of geographic locations and settings (major medical centers, community hospitals, and free-standing clinics) in order to establish a broad evidence-based perspective for the data set. Data for the four primary endoscopic procedures: esophagogastroduodenoscopy (EGD), colonoscopy, endoscopic retrograde cholangiopancreatography (ERCP), and flexible sigmoidoscopy; as well as the most common therapeutic procedures (biopsy, polypectomy, dilation, endoscopic ultrasound [EUS], and manometry/motility) were analyzed to establish the key elements of the Minimum Data Set. Focus groups with members from around the U.S. verified the validity of the Minimum Data Set. The SGNA Minimum Data Set can be used by healthcare institutions, industry, and individuals to facilitate the capture and analysis of standardized data for the purpose of improving GI patient outcomes and enhancing delivery of nursing care.

Aminimum data set (MDS) is a classification system useful for standardizing "essential" information, such as content and terminology. The Society for Gastroenterology Nurses and Associates (SGNA) define their MDS as the identified essential elements necessary to document delivery of patient care in the gastrointestinal (GI) endoscopic setting.

In nursing, examples of MDSs include the North American Nursing Diagnosis Association (NANDA) nursing diagnoses, Nursing Interventions Classifications (NIC), Nursing Outcomes Classifications (NOC), and the Home Health Care Classification (HHCC) of Nursing Diagnoses and Interventions. The American Nurses Association Steering Committee on Databases to Support Clinical Practice (ANASCD) has also undertaken development of a nursing minimum data set (NMDS). Three broad categories are included in the NMDS: 1) nursing care elements (nursing diagnosis, interventions, outcomes, intensity of nursing care), 2) patient demographic elements (personal identification, date of birth, sex, race and ethnicity, residence), and 3) service elements (unique facility or agency number elements, unique patient health record number, unique number of the principle registered nurse, episode encounter date, discharge or termination date, disposition of patient, and expected payer for the bill) (http://personal.uncc.edu/macurran/macurran3/coni/nmds. htm).

Purpose of a Minimum Data Set

The Council on Nursing Informatics (CoNI) (http://personal.uncc.edu/macurran/macurran3/coni/council.htm) was established in 1993 by the North Carolina Nurses Association to recognize the contributions of the informatics nursing specialty. This group has clearly articulated many of the goals for standardization of nursing systems, as in MDSs, arguing that standardization allows for:

- Comparison of nursing data across clinical populations, settings, geographic areas and time.
- Accessing comparable, minimum nursing care and resources data on local, regional, and national levels.
- Enhancing documentation of nursing care provided.
- Identifying trends related to client problems and nursing care provided.
- Improving data for quality assurance evaluations.
- Providing an impetus for the development and refinement of NIS.
- Comparing research on nursing care, including research on nursing diagnosis, nursing interventions, resolution status of client problems, and referral for further nursing services.
- Contributing towards the advancement of nursing as a research-based discipline.
- Describing nursing care of patients and their families in a variety of settings, both institutional and noninstitutional.
- Demonstrating project trends regarding nursing care provided and allocation of nursing (http://personal.uncc.edu/macurran/macurran3/coni/standrd.htm).

In establishing the SGNA MDS, organization leadership recognized the importance of standardized information for facilitating communication between practitioners to enhance patient outcomes. The SGNA MDS was developed for "public" use to facilitate quality patient outcomes and to enhance the education, research, and clinical practice of GI nurses.

History of the SGNA Minimum Data Set

In the fall of 2000, a group of GI nurses were hired by a proprietary company as consultants to assist with the development of essential elements in GI nursing documentation to be incorporated in computer software. As the group discussed the project, the idea was raised that the SGNA membership and GI community would benefit from the establishment of a MDS. In the months to follow, discussion ensued with the SGNA Board of Directors. Financial support was provided for the project by Pentax Medical and a task force was appointed.

Initially, the task force members hired a consultant, Susan Grobe, PhD, RN, internationally known for her expertise in nursing informatics, to help the task force grasp the issues surrounding development of a MDS. Time was spent orienting task force members to the "basics" of nursing informatics, including a review of pertinent literature; establishing what the purpose of the SGNA MDS would be; and establishing a timeline for development of the data set. Task members struggled initially with whether a "nomenclature" (specific nursing language) was indicated for the specialty or whether a data set was more appropri-

ate. Because of regional differences in use of language and the known challenges of the profession at the national level to develop a single nursing nomenclature, the group's final recommendation was development of a MDS. The project moved forward, this time with the advice and guidance of systems consultant Pat Turpin, PhD, RN, CNAA, BC.

Development of the Project

The members of the task force were particularly committed to developing a MDS that would be useful for a multitude of nursing uses including: a guideline for documentation (whether manual or computerized), a guide for benchmarking current practice, a resource for employee orientation and training, a resource for CBGNA certification preparation, and to facilitate standardized retrieval of research data points. In 2002, 20 letters were mailed requesting participation of the top 20 endoscopy departments in the United States as published in the 2001 US News and World Report "Top Hospitals in the United States." Twelve facilities returned the form saying they would participate, six returned the form saying they would not participate, and four facilities actually followed through by sending copies of the requested documentation. In addition, data were received from four facilities associated with SGNA leadership.

A cross-sectional representation of geographic locations was sought and included data from California, Colorado, Florida, Indiana, Michigan, Minnesota, South Carolina, Texas, and Washington, DC. Major medical centers, community hospitals, and free-standing surgical centers were represented. The data were collected at SGNA headquarters, and analyzed by the task force under the guidance of the consultant.

During the analysis process, task force members looked at the individual elements across the data, identifying key elements that would reflect critical documentation components regardless of regional trends. The task force felt the MDS should provide a broad reflection of practice, though components of the MDS could be tailored to fit the needs and desires of the individualized end user.

MDS Procedural Components

Initial procedural components were identified by the task force in March 2003. Data for the four primary endoscopic procedures: esophagogastroduodenoscopy (EGD), colonoscopy, endoscopic retrograde cholangiopancreatography (ERCP), and flexible sigmoidoscopy were analyzed and the key elements of the MDS for these procedures were proposed by the task force. To assure validity of the identified data set, a focus group of attendees at the 2003 SGNA Annual Meeting in Atlanta reviewed the data set and offered comments and suggestions. The focus group was obtained through an e-mail sent to preregistered Annual Course attendees (approximately 1,200 individuals). Seventeen individuals responded and participated in giving feedback to the initial MDS draft. These comments and suggestions were then incorporated into the evolving MDS.

In January 2004, further procedural component sections (Biopsy, Polypectomy, Dilation, Endoscopic Ultrasound [EUS], and Manometry/Motility) were added following additional data analysis by the task force. Results of this

analysis were posted for public viewing on the SGNA Web site in April 2004 to obtain a rich source of comments and suggestions. Information about how to link to the document at the SGNA Web site was circulated in the monthly SGNA eScope which was sent to approximately 4,000 members. Twenty-two responses were obtained via this method. As done previously, an additional focus group took place at the May 2004 SGNA Annual Meeting in Dallas to review the evolving MDS for further comments and suggestions. Results of the public online forum as well as the focus group comments and suggestions were incorporated into final version of the SGNA MDS.

Organization of the SGNA MDS

The MDS is organized according to procedural care: Pre, Intra, and Post. As previously emphasized, the MDS identifies recommended minimal data points for each aspect of nursing care typically implemented during the major GI procedures, but allows each user to individualize the MDS to meet local or individualized needs and requirements. Anticipated benefits of the SGNA MDS are to:

• Minimize individual/institutional efforts spent on developing documentation standards in the GI setting.
• Equip systems designers with basic information required for online documentation in the GI setting.
• Allow for easier retrieval of information for analysis (quality assurance and research).
• Provide unofficial benchmarking standard in practice settings.

Summary

Use of MDSs are becoming recognized resources for communication of critical data around the world. The United States government has established a MDS for tracking data related to nursing homes (http://www.cms.hhs.gov/quality/mds30/). The Canadian government uses a Health and Human Resources Minimum Data Set (HHR MDS) to collect and analyze health personnel data. The stated goal of the HHR MDS is to prioritize information needs and identify related indicators and data elements that should be collected in a standardized fashion across the country (http://secure.cihi.ca/cihiweb/dispPage.jsp?cw_page=MDS_18aug2004_1_e).

In Sydney, Australia, a Trauma Minimum Data Set (TMDS) is used for the greater Sydney metropolitan area to track serious injury patterns, trauma system function, and outcomes (http://www.health.nsw.gov.au/ pubs/2004/trauma2003 rep.html). The Australian government also has an Aged Care Assessment Program that uses a MDS to track "both the impact of the Aged Care Assessment Program on the aged care system and the ways the Program appears to have responded to changes in the aged care system" (http://www.health.gov.au/internet/wcms/publishing.nsf/Content/ageing-reports-acapmds.htm). The Office of the Safety and Quality Council has even established a MDS to collect minimum and consistent data from across Australian healthcare organizations to identify and analyze potential errors and areas for improvement (http://www.safetyandquality.org/articles/Action/minimdata.pdf).

In nursing, MDSs are beginning to be developed in order to more effectively communicate aspects of care for the discipline. The University Of Iowa School Of Nursing, known for expertise and contributions to nursing informatics, has established a USA Minimum Data Set Consortium to facilitate maintenance and further development of the NMDS. The International Medical Informatics Association Nursing Informatics Special Interest Group and the International Council of Nurses are cosponsors of the International Minimum Data Set (i-MDS) project with a goal of establishing an international MDS to describe, study, and improve patient care around the world (http://www.nursing.uiowa.edu/sites/NI/research_frm.htm).

Consistent with the SGNA mission to advance "the science and practice of gastroenterology and endoscopy nursing through education, research, advocacy, and collaboration, and by promoting the professional development of its members in an atmosphere of mutual support" (www.sgna.org), the SGNA MDS is a tool for facilitating quality in patient care, education, and research. Development of the MDS was a collaborative project with SGNA members as GI nurses from across the country contributed copies of their documentation tools, reviewed the content proposed by the task force, and offered comments and suggestions to further develop and refine the initial version of the SGNA MDS. Development of this beneficial tool will be ongoing, with changes incorporated in the future as the scope and definition of GI nursing care evolves. The MDS can be used by healthcare institutions, industry, and individuals to facilitate the capture and analysis of standardized data for the purpose of improving GI patient outcomes and enhancing delivery of nursing care.