Data to Wisdom: Informatics in Telephone Triage Nursing Practice

Ruth Schleyer • Sheryle Beaudry

Was this past May 12 just another “typical” day in telephone triage nursing? Or between fielding calls, assessing patient problems, and offering advice and referring, did you pause to wish your colleagues Happy Nursing Informatics Day? Yes, May 12, recognized among nursing professionals as Florence Nightingale’s birthday, has been designated Nursing Informatics Day by the American Nurses Association (ANA). Among her many gifts, Nightingale has been recognized as the first nurse to gather, analyze, and interpret data for meaningful improvements in patient care delivery and care environments (Neuhauser, 2003). She quantitatively documented nursing processes and care outcomes and applied her knowledge of statistics to lead performance improvement initiatives (Neuhauser, 2003). Indeed, Nightingale applied informatics competencies in her nursing practice well over a century before the computer was first invented.

Today it’s hard to imagine a world without computer technology in every purse and pocket. From cell phones and iPods to implanted defibrillators and insulin pumps, computers have become pervasive, ubiquitous, and in many ways transformational. Patients who seek advice and care are often informed by Internet searches for health information, and health care providers must also be fluent in computer use and able to respond appropriately. But, is informatics only about computers and technology? If that is the case, why would Florence Nightingale’s birthday be celebrated as Nursing Informatics Day? What is informatics anyway - and why should nurses who are busily engaged in modern telephone triage nursing practice care?

What is Informatics?

Officially recognized by the ANA (2008) as a nursing specialty eligible for certification in 1992, nursing informatics may be considered as a component of the more inclusive term, health care informatics. Englebardt and Nelson (2002), describe health care informatics as “the study of how health data, information, knowledge, and wisdom are collected, continued on page 10

Contact hour instructions, objectives, and accreditation information may be found on page 13.
AAACN Advocacy Efforts
(or How AAACN Advocates For Its Members)

In my last President’s message I discussed how each AAACN member directly benefits from belonging to our organization, and I touched upon how the economic downturn was affecting nurses in general and our association specifically. At the time of this writing, the economy continues to have an impact on our association. AAACN’s two greatest sources of income have decreased in the last six months. Membership numbers have markedly declined, and attendance at our Philadelphia conference was 16% less than the previous year. The board continues to actively review all expenditures relative to our income.

Despite the less-than-rosy financial picture, AAACN continues to have an active core of volunteers who are working for ambulatory care nurses and adding value to your membership. There are two major projects in progress which we plan to have ready for the 2010 Las Vegas conference. One group of volunteers is preparing a major update of AAACN’s Ambulatory Care Standards and Telehealth Standards, aligning the format and scope of practice of each with ANA’s standards. With this standards update, we plan to further help our members to have documentation of our specialty in hand.

A second volunteer group is working to update the Guide to Ambulatory Care Nursing Orientation and Competency Assessment. This is the second edition of the much-used publication. The content will be expanded to include staff educator competencies and transitioning into ambulatory care nursing.

The resources I cited above are part of AAACN’s strategy to achieve its goals of Education and Knowledge. The other two goals of AAACN’s strategic plan are Community and Advocacy. The strategic plan provides the basis for AAACN’s board to organize the work it does for the membership. Typically, goals are formed for a period of time and strategies are determined to achieve those goals.

Members can see the tangible benefits of belonging to AAACN such as Viewpoint, a choice of a bi-monthly journal, networking, and educational opportunities. In addition to these benefits, AAACN works in other ways to advocate for the specialty of ambulatory care nursing. Our volunteers are active in promoting the organization’s advocacy strategies.

The Legislative Committee was established in 2008. This committee, chaired by Pat Reynaga, RN, is charged with reviewing legislative information from external sources, recommending legislative priorities to the board, and reviewing and suggesting action on pertinent ambulatory/telehealth legislative issues.

Because AAACN is a small organization and we do not have the resources to have our own lobbyists or advocates located in Washington, DC, we have capitalized on the resources of larger organizations such as the American Association of Colleges of Nursing and the Emergency Nurses Association. These organizations track legislation that is pertinent to our specific goals or to the practice of nursing. We are frequently asked to support specific legislative initiatives. Being seen as part of these important legislative initiatives promotes our specialty and ensures the organization’s visibility. Examples of these initiatives are:

- National Nursing Centers consortium letter supporting a $50 million grant program to support nurse-managed health clinics, ensuring the medically underserved have greater access to primary care and wellness services.

continued on page 15
In this issue of Viewpoint, the spotlight is on telephone nursing, an integral facet of ambulatory care. However, each article raises issues and provides insights that are pertinent to all aspects of ambulatory care practice. The articles cover principles of information utilization, the impact of the economy on health care choices, and the importance to ambulatory care of awareness, attention to detail, appropriate use of all available resources, and above all, being mindful of the standards and responsibilities inherent in the role of the ambulatory care nurse and the application of the nursing process. In short, the content illustrates that nursing is nursing regardless of the tools used, and that each nurse has the potential to make a positive difference at the individual, organizational, and health care system level. Thus, I am confident that like myself, each of you, regardless of your specific role in ambulatory care, will find this issue stimulating and valuable.

Issue Editor
Liz Greenberg, PhD, RN-BC, C-TNP

Liz Greenberg Serves as Viewpoint Issue Editor for September/October

As we continue our search for a new Editor of Viewpoint, our Editorial Board members have graciously offered to take turns serving as Issue Editor for the next few issues. Liz Greenberg, PhD, RN-BC, C-TNP, is serving as Issue Editor for September/October. Liz has been a member of the Viewpoint Editorial Board since August 2007.

Liz is an Assistant Clinical Professor at Northern Arizona University in Flagstaff, AZ. For over 14 years Liz has practiced, studied, published, and presented in the field of ambulatory care nursing and telehealth, and she has practiced telephone triage nursing in multi-specialty pediatric and OB/GYN ambulatory care clinics.

For two years Liz was Manager of a regional after-hours telephone triage service where she was responsible for daily operations, staff education and development, quality assurance, marketing, and fiscal accountability. Over 90 providers from individual offices, group practices, and organizations subscribed to this service, which addressed the health needs of 250,000 patients of all ages.

Liz has been a member of AAACN since 1999. She has served on the Clinical Roles Task Force, the Telehealth Standards Revision Task Force, and the Telephone Triage Special Interest Group. She received a AAACN Education Scholarship in 2001 and a Research Scholarship in 2005.

Thank you, Liz, for all you do for Viewpoint and AAACN!

AAACN Vision for Telehealth Nursing

Telehealth will be recognized as an integral part of ambulatory care and AAACN will be the industry leader for telehealth nursing practice.

AAACN strongly encourages all telehealth nurses to become certified in ambulatory care nursing. Because telehealth nurses provide nursing care to patients who are in an ambulatory setting, they must possess the knowledge and competencies to appropriately provide ambulatory care.

Ambulatory care nursing certification, especially with the enhanced telehealth component in the new electronic exam, is the career credential for all ambulatory care nurses. Ambulatory certification is and will continue to be the gold standard credential for any nursing position within ambulatory care.

Suzanne Wells Joins AAACN Board of Directors

Suzanne (Suzi) N. Wells, RN, BSN, is a new member of the AAACN Board of Directors. Suzi is Manager, Answer Line at St. Louis Children’s Hospital. She has been an active member of AAACN’s Telehealth Nursing Practice Special Interest Group (SIG) for many years. She has presented at the annual conference and currently serves as the AAACN liaison to the American Academy of Pediatrics Section on Telehealth Care.

“My clinical passions are nurse education and professional advancement, evidence-based practice, and improving communication with our physician colleagues,” says Suzi.

The board of directors looks forward to Suzi’s contributions and insight into the needs of our members as well as her representation of our telehealth nursing practice members. Suzi fills the director position vacated by Sana Savage, LCDR, USN.
Prior to guideline selection, the nurse must do a sufficient assessment to accurately ascertain the reason for the call. Patients often initially express their “most worrisome associated symptom” instead of the actual primary problem. For example, a patient with pyelonephritis might first complain of fever and vomiting, and only after careful assessment will the nurse identify other symptoms such as flank pain, hematuria, or a recent history of cystitis. Likewise, callers will often couch their request in the form of a health information question when in reality, they have a deeper health care concern. An example of this might be the mother who asks about the “right dose of Tylenol for my baby,” when in reality, the child has a fever and the underlying cause is her actual concern.

As soon as is feasible in the conversation, the nurse should inquire as to why the patient is calling. This answer, properly investigated, will have two parts. First, the nurse needs to know what the patient’s concern is, but second (and this is often overlooked), the nurse needs to know what action the caller is seeking. Does the caller want an appointment with her primary care physician or is she seeking a referral to a specialist? Would she prefer home care? Is she seeking health information or reassurance? Without knowing what the patient’s problem is and what she wants to do about it, the well-intentioned nurse might provide misguided advice, overlooking the patient’s actual need or the caller’s wishes.

In performing this assessment, it is important to allow the caller to talk freely and for the nurse to do some active listening. Often, efforts to locate the caller’s record in the database, record patient information, and/or access and reference the guideline will divert the nurse’s attention, and the result can be overlooking key comments or phrases that would provide insight into the patient’s problem and request.

The American Academy of Ambulatory Care Nursing (AAACN) defines telephone triage as “a component of telephone nursing practice that focuses on assessment, prioritization, and referral to the appropriate level of care” (2007, p 22). They further acknowledge that it involves “…identifying the nature and urgency” of the patient’s needs (AAACN, 2007). It is important to keep in mind that much of this process of telephone triage involves determination and consideration of intangibles that will help direct and individualize the care provided to the patient. The key unifying element of telephone nursing practice is interpretation, which occurs not only during data collection, but also when processing information, providing care, and determining an appropriate disposition (Greenberg, 2009).

In 2002, Wilson and Hubert (p. 160) noted that: “The decision-making processes required for priority-setting and the provision of advice have been found to be complex and multifaceted. Conceptualization of this valuable patient care activity as a linear ‘triage’ function serves to make invisible the nursing care provided.”

It is within this context that telephone triage can be recognized as:

…an encounter with a patient/caller in which a specially trained, experienced nurse, utilizing clinical judgment and the nursing process, is guided by medically approved decision support tools (protocols), to determine the urgency of the patient’s problem, and to direct the patient to the appropriate level of care. This plan of care is developed in collaboration with the caller and includes patient education and/or advice as appropriate and necessary and follow-up as indicated to assure a safe outcome (Rutenberg, 2009).

Use of quality decision support tools can enhance the telephone triage encounter, decreasing ambiguity in decision making, standardizing practice within the organization, and ensuring patient safety by decreasing the likelihood that something significant might be overlooked. However, it is important to keep in mind that these decision support tools only provide a blueprint to guide the process, and that critical thinking and clinical judgment must be the basis for all decision making. Telephone triage nurses must utilize the nursing process to identify the patient’s problem, ascertain the caller’s wishes, and collaboratively develop an appropriate plan of care.
Assessment

In providing a history, patients often offer only the information that they believe the nurse needs in order to provide the information that the patient is seeking. In so doing, they might understate the nature of the problem or inadvertently or deliberately withhold key information. It is critical, therefore, for the nurse to routinely anticipate worst possible scenarios and to promptly identify or rule out any life-threatening problems. It is also important for the nurse to perform an adequate assessment to be certain that the purpose of the call and the patient’s needs have been accurately identified.

Patient assessment, the first step of the nursing process, involves collecting both subjective and objective information. The history provided by the caller constitutes the subjective information. Objective information can be gleaned by listening to the patient’s breathing, clarity of speech, and appropriateness of discourse. Findings such as wheezing, tachypnea, productive (or dry) cough, slurred speech, confusion, and disorientation are examples of objective data which can be directly assessed over the telephone.

Additional objective information can be obtained from the direct observations by the patient/caller. Instrumentation is often present in the home so that the caller can provide objective measurements such as temperature, blood pressure, weight, blood sugar, and peak flow volumes. In addition to information that can be directly measured, callers can also make a variety of key observations, given adequate coaching by the nurse. An example of this might involve assessment of a laceration. If asked, a caller will be able to describe the location, size, appearance (if the edges are well approximated), presence of any obvious foreign material, and whether or not the bleeding is controlled. Another example might be the amount, character, and odor of emesis. While these observations are unlikely to be precise (e.g., the caller probably won’t be able to report emesis in cc’s), they can certainly report whether it was “a lot” or “just a little,” whether the gastric contents are clear, yellow/green, bloody, or like coffee grounds, and whether or not it had the odor of fecal material. A good rule of thumb to keep in mind is that anything nurses can do with their eyes, hands, or nose, callers can do with their eyes, hands, or nose with adequate direction from the nurse.

Diagnosis

In telephone triage, the diagnosis is expressed as a measure of urgency. Is the problem emergent (immediately life, limb, or vision threatening), urgent (potentially life, limb, or vision threatening), or routine or non-urgent? Diagnosis also involves determining the patient’s need for nursing care such as support, guidance, reassurance, education, coaching, and other nursing care that would facilitate the patient’s ability to

Planning

In telephone triage, the plan must be collaborative. It is important to keep in mind that once the patients/callers hang up the phone, they will do precisely what they want to do, regardless of the best wishes of the nurse. Therefore it is critical that the nurse thoroughly investigate the prevailing circumstances with the patient, identifying key factors that are important, and developing a plan of care that is acceptable to the patient. This often requires a process of negotiation, supported by patient education. It is incumbent upon the nurse to act in the patient’s best interest and develop a plan of care that assures patient safety and that the patient is likely to follow. Collaboration is often necessary with other members of the health care team, as well. Although not required to “cover” the actions of the nurse, it is recommended that providers review the triage note and plan of care in a timely fashion (e.g., by the end of the day). This is also important because providers have a right and a responsibility to know what is going on with their patient.

Intervention

In the final analysis, it can be argued that telephone triage nurses can’t do anything to or for patients. Someone else must do to or for the patient, and the role of the nurse is to be certain that circumstances support desired actions. For example, the nurse might need to assess the caller’s level of understanding and provide education and support to enable the caller to perform the desired actions. If the patient is to be transported to a health care facility, does the caller have transportation, or does the nurse need to help identify resources to transport the patient appropriately?

The nurse also often has a key role in assuring continuity of care. If the patient is being referred for care, it is important that the nurse advise the health care team of the refer-

A good rule of thumb to keep in mind is that anything nurses can do with their eyes, hands, or nose, callers can do with their eyes, hands, or nose with adequate direction from the nurse.
referred as the receiver. If the nurse has information that is critical to the care of the patient but fails to share it with the appropriate individual(s), the likelihood that the patient will receive the care she needs is diminished. The role of the telephone triage nurse in assuring continuity of care is critical.

Evaluation
The last step in the nursing process is evaluation. There are a great many ways to evaluate telephone calls. We can measure patient satisfaction, compliance with the guideline, compliance with the plan of care, or other organizational indicators of quality. However, in the context of the nursing process, evaluation is a measure of whether or not the actions taken were effective. Or more directly put, did the patient get better or not? If the patient did not get better, the nurse has a responsibility to reassess the patient, confirm the diagnosis of urgency (and be sure that all elements which will impact the plan of care have been identified), revise the plan of care if necessary, implement that plan, and then reevaluate. The encounter is not over, or closed, until the nurse has reasonable assurance that the patient will call back or seek appropriate care if their condition worsens or fails to improve as expected. Usually this can be accomplished by assuring that the patient understood and is comfortable with the plan of care, is willing to comply, and will call back if there are adverse outcomes. However occasionally, especially with high-risk callers or problems, it is important for the nurse to follow-up with the patient before “closing” the encounter (Greenberg, 2009).

As a final note, it is essential that the telephone triage nurse keep in mind that due to the very nature of patient assessment over the phone, the most experienced and thorough nurse might overlook key assessment parameters. Therefore, telephone triage nurses must always err on the side of caution. If there is any doubt about the appropriate disposition, the prudent telephone triage nurse must always lean in the direction of patient safety, going to the higher of the two dispositions under consideration. And thorough documentation of the call, including pertinent positives and negatives as well as the patient’s understanding, intent to comply, and comfort with the plan of care are critical elements of the total encounter.

In conclusion, telephone triage is a highly complex, sophisticated form of nursing care that has the potential to significantly impact the health and well being of the patients who use this service. Telephone triage nurses must be alert to the potential for the caller’s need to be more complex than initially stated and thus, a thorough assessment, anticipating worst possible alternatives, and erring on the side of caution are key to successful telephone triage.

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References
TNPCC Available Three Ways: CD-ROM, Online Library, or Presented Live at Your Facility

The Telehealth Nursing Practice Core Course (TNPCC) has been updated to reflect the latest practices and terminology in telehealth nursing practice. The course includes topics essential for nurses new to telehealth practice, experienced in telehealth, and for those interested in expanding their telehealth knowledge base. The course is also helpful to those preparing for the Ambulatory Care Nursing Certification Exam, which has been enhanced with additional telehealth content.

The all-day course was taught and recorded earlier this year at the 2009 Philadelphia conference. Nurses who attended the course in Philadelphia had these comments:

• “New to telehealth field, I found the course extremely helpful.”
• “The triage session on the last day (at the conference) was phenomenal.”
• “I really got a lot out of the telehealth course.”

Available on CD-ROM and in the Online Library (www.prolibraries.com/aaacn), the recorded course includes audio, Power Point slides, and a CNE form to obtain 7.5 contact hours. If you would like to offer the course LIVE at your location or obtain details on purchasing a site license to post the course on your Local Area Network (LAN), email reichartp@ajj.com or call Pat Reichart at 800-262-6877, ext. 53 for details.

Browse the Online Library for an Array of Telehealth Education

Each year, the AAACN conference offers a telehealth track to meet the education needs of our telehealth members and colleagues. Sessions from our most recent conference and past conferences are just a click away in the Online Library! Listen to the audio recording, view the Power Point slides, and earn contact hours. Prices for the 2009 conference sessions are: $20 for concurrent sessions; $25 for special and workshop sessions; and $49 for Pre-Conference sessions. All sessions include contact hours. Visit www.prolibraries.com/aaacn to browse the Online Library.

Network and Learn: Join the Telehealth Nursing Practice Special Interest Group

The Telehealth Nursing Practice Special Interest Group (SIG) is one of our most active SIGs. Through three work groups (Clinical Practice/Quality Improvement, Communication/Networking, and Education), the SIG focuses on improving telehealth clinical practice and promoting AAACN’s Telehealth Nursing Practice Administration and Practice Standards through networking, education, and research. The SIG meets once a year at the annual conference and monthly via conference calls. To join the TNP SIG E-mail Discussion List, log in to your member account and select E-mail Discussion Lists from your Control Panel at top. To be an active member of the SIG, contact Chair Maureen Power at maureen.power@powercronin.com.

Improve Your Practice With the “Yellow Pages” for Telehealth Nursing

The Telehealth Nursing Practice Resource Directory could be described as a “yellow pages” for telehealth nursing. Use the directory to improve the quality, efficiency, and effectiveness of your telehealth practice with this collection of professional standards, practice tools, textbooks, articles, references, Web sites, associations, call center services, sample job descriptions, and more in an easy-to-read, bibliography-style, spiral-bound guide. Order your copy in the AAACN “Store” at www.aaacn.org (Regular price: $24, AAACN member price: $19).

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This text book provides the essential knowledge nurses need to safely and competently practice telehealth nursing.

Topics include:

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• Clinical information
• Communication
• Customer service
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• Legal issues
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WWW.AAACN.ORG
AAACN Publishes First Position Statement on Nurse Licensure Compact

A very determined group of telehealth nurse members has been diligently working since the middle of 2008 on AAACN’s first position statement on the Nurse Licensure Compact (NLC). The Compact permits a nurse from a Compact member state to practice in other Compact states (physically and electronically), subject to the nurse practice laws and regulations in that state.

The NLC Task Force conducted research, solicited member input on the draft statement via a survey, and talked to state boards of nursing to form the background and develop the final statement. The position statement also provides an accurate definition of telehealth nursing practice.

It is the hope of the Task Force and AAACN that this position statement will arm telehealth nurses and their employers with information necessary to encourage and support their state in joining the NLC. The document is meant to provide a clear explanation of the benefits of being a Compact state and provide documentation in support of legislation or regulation adopting the NLC.

This task force was chaired by Carol Rutenberg, RNC-BC, MNSc. Contributing members included: Sheryle Beaudry, RNC-TNP, BSN – Secretary; Ramona Browne, RN, MSN; Debbie Stover, RN; Gina Tabone, MSN, RNC; Barbara Glickman-Williams, RN; Charlene Williams, MBA, BSN, RNC, BC; and Marianne Sherman, RN,C, MS – Board Liaison.

AAACN Nurse Licensure Compact Position Statement

The lack of uniform adoption of the Nurse Licensure Compact among all of the United States and its territories poses a significant risk to ambulatory care and other nurses involved in interstate practice. Additionally, patients are potentially at risk when lack of licensure serves as a deterrent to nurses providing care across state lines. Uniform adoption of the Nurse Licensure Compact would benefit ambulatory care nurses who provide care via telecommunications technology and organizations that provide telehealth nursing services. Adoption would ultimately serve to improve patient care and safety.

AAACN endorses the Nurse Licensure Compact and encourages all States and U.S. Territories to introduce legislation in support of uniform adoption of the Nurse Licensure Compact. Furthermore, in support of the NLC, AAACN endorses the need for all telehealth nurses to be licensed in each state in which they provide care via telecommunications technology.

Approved by AAACN Board of Directors August, 2009

NOTE: If you would like to download the complete position statement including the background, definitions, and references that support the statement, or view all of the comments submitted by members who reviewed the draft statement, visit www.aaacn.org, and click on “Resources/Position Statements.”

2010 Conference Keynote Speaker to Focus on Leadership Skills

May 4-7, 2010 • Las Vegas, NV

You’ll want to save the dates for AAACN’s 2010 Conference after you hear about our keynote speaker. Michael Grossman, DM, MSN, RN, NEA-BC, will present "How to Get Things Done When You’re Not in Charge" which will focus on leadership skills that all of us need, use, and must develop in order to grow as professionals. Dr. Grossman will also present a preconference workshop, “I Wish I Said That! Skills for Communicating With the Most Difficult People in Your Life” and discuss crucial conversations that every nurse has to have with fellow staff, patients, and families, no matter the setting.

Dr. Grossman is an independent nursing consultant, academician, and career counselor. As former Coordinator of Nursing Leadership Development at The Children’s Hospital of Philadelphia (CHOP), he brings a wealth of knowledge about creative nursing leadership. He specializes in leadership development, career coaching, team building, and communications. He is a frequent speaker both locally and nationally on various leadership topics including change, motivation, quality improvement, teambuilding, and dealing with “difficult” people. Dr. Grossman is a Certified Facilitator of Dr. Stephen Covey’s The 7 Habits of Highly Effective People and Kerry Patterson’s Crucial Conversations.

The planning committee is currently hard at work confirming a wonderful slate of sessions that will engage you with important ambulatory care nursing topics as well as offer networking opportunities with colleagues from around the world.

Recommend Vendors for the AAACN Exhibit Hall

The Program Planning Committee is planning the 2010 conference in Las Vegas, and they need your help to expand the exhibit hall. Do you know a vendor who may want to exhibit? Is there a vendor you would like to see participate? Or do you want to learn more about a product, service, or system used by ambulatory or telehealth nurses? Please share your vendor/exhibitor suggestions with us! We will invite the vendors you recommend to exhibit in Las Vegas.

If you speak to vendors directly, we ask that you recommend they exhibit at AAACN’s annual conference, and suggest they contact Tom Greene, Marketing Director at 800-262-6877, Ext. 54 or greenet@ajj.com to discuss how exposure to AAACN’s members and conference participants can enhance their business.
We are spotlighting a telehealth nurse in this special issue. Meet Gina Tabone, MSN, RNC, who hails from Euclid, Ohio. Gina is an Education/Protocol Specialist for Nurse on Call at the Cleveland Clinic, and she became a member of AAACN six years ago after being encouraged to join by a former manager who had also served on AAACN’s Board of Directors.

Gina assists with the orientation and training of new staff members in her role as Education/Protocol Specialist. “I came to realize that how I was introduced to any new role and the manner that was used to prepare me for a new role played an integral part in how soon I was able to be competent in a new job and feel a level of personal satisfaction.”

With that in mind, when Gina started in her position, the first thing she did was create a preceptor manual and conduct a class for preceptors. “The manual was based on general teaching theories that explored the characteristics of adult learners and the various learning styles that people have. It was enlightening information for all of us,” she says.

In addition, call volume in her department has steadily increased, and 20 full-time nurses have been added to the staff, making Gina busier in the past 18 months assisting with orientation and training of the new members. Despite the added responsibilities, Gina says the department is fortunate to have the influx of help.

She says completing her masters of science in nursing degree prepared her for the new role, but that the best preparation she had were the six years she spent on the phones as a telehealth triage nurse. “I value my position as a triage nurse, and I enjoy the individualized encounters I experience with calls. For a short period of time, it is only you and that one caller, who is calling asking you, as the nurse, to help them with their problem. In spite of the fact that the interaction is remote, it is a professional, trusting, and therapeutic encounter that is as unique as the patient.”

As an Education Specialist, Gina finds rewards that sometimes start out as challenges. “I am often asked questions by the staff, and sometimes I don’t have the answers. I like finding the answer and having the opportunity to collaborate with my manager, our medical director, and other subject experts. Everyday something different is happening which I find very stimulating.”

Prior to working at the Cleveland Clinic, Gina worked in an adult/geriatric inpatient behavioral medicine unit and the emergency department of a busy suburban hospital. Gina says these experiences have made all the difference.

“The knowledge and skills I gained from working in those areas enhanced my performance as a triage nurse. That is one aspect of nursing that I love - the continuous, layering-upon-layering of professional experiences, each time enabling me to expand and fine tune my skill sets.”

Gina cited AAACN as an invaluable resource of education, networking, and even redemption, explaining that “the role and importance of a telehealth nurse is often misunderstood, but that is rapidly changing. As a member of AAACN, I have been exposed to a group of nurses who not only recognize the role triage nurses play, but also place value on us and hold the specialty in high regard.”

To her, the biggest reward of belonging to AAACN is attending the conferences. “The first time I attended a session on telehealth or sat in on a SIG meeting was such a validating experience. Being with a group of telehealth nurses who were sharing best practice ideas with each other and identifying issues, such as how to hire the best nurses for triage, or the problem of interstate licensing, or what to do with the callers who are frequent fliers, was a great experience.”

“This past year, I had the opportunity to work on the revision of Telehealth Nursing Practice Essentials (TNPE). It felt great to be a contributor to a group project. I also had the chance to be on the committee that worked on AAACN’s first position statement on the Nurse Licensure Compact. I look forward to being involved in future projects.”

In addition to the satisfying feeling of contributing to a AAACN product, she also finds the use of them just as fulfilling. “The Telehealth Nursing Practice Administration and Practice Standards is required reading for our new staff. We also review the standards annually as part of our education competencies, and we use the TNPCC as a reference.”

Gina has lived in Cleveland her entire life, where she opts to spend her personal time “with members of [her] large family and a great circle of friends” and she is never without ideas in which to entertain herself. “I love to cook, go to the movies, vacation in Arizona with my sister, read, and my guilty pleasure is watching all of the “Housewives” shows on Bravo TV. Freddie is my sweet dog who is delightful and provides me with endless hours of enjoyment... Life is good!”

Gina is enthusiastic about her future endeavors, including teaching her first baccalaureate nursing class, which is scheduled for this fall. “I love the teaching aspect of nursing. My role as the Education Specialist allows me to work one-on-one with orientees, and it has been a rewarding experience both personally and professionally. I give our newly hired nurses so much credit for being daring and transitioning to a new nursing specialty, especially one as unique as telehealth.”

Column Editor Nancy Spahr, MS, RN,C, MBA, CNS, is taking a short break from Real Nurses. In the meantime, Viewpoint Managing Editor Linda Alexander and Editorial Coordinator Joe Tonelli will continue to feature real AAACN nurses. If you would like to be featured, please contact Linda at linda@ajn.com.
stored, processed, communicated, and used to support the process of health care delivery to clients and providers, administrators, and organizations involved in health care delivery” (p. xx). According to Hersh (2009, Discussion section, 3), the term health informatics refers to “the field that is concerned with the optimal use of information, often aided by the use of technology, to improve individual health, health care, public health, and biomedical research.” Hersh notes that informaticists (practitioners of informatics) are more focused on information than on technology and that further sub-specialization in informatics may be designated by descriptors such as ‘nursing,’ ‘biomedical,’ or ‘public health’ informatics (ANA, 2008).

What makes nursing informatics unique? The ANA (2008) describes nursing informatics as a distinct specialty that brings the voice of nursing to the health informatics conversation by providing the nursing perspective, representing nursing values and beliefs, and focusing on phenomena of interest to nursing. Nursing informatics provides nursing language and word context to health informatics, denotes a practice base, produces unique nursing knowledge, and distinguishes groups of nursing practitioners (ANA, 2008).

The definitions and models for nursing informatics have evolved over the past 25-plus years. An early primary focus on links to emerging technology in health care (Hannah, 1985; Scholes & Barber, 1980) transitioned to a conceptual orientation described by multiple models and frameworks (Graves & Corcoran, 1989; Schwirian, 1986; Staggers & Parks, 1993; Turley, 1996). The nursing informatics role also evolved during this timeframe and current definitions have a clear role orientation (e.g., ANA 1995; 2001; 2008). The most recent ANA (2008) definition of nursing informatics states that:

Nursing Informatics (NI) is a specialty that integrates nursing science, computer science, and information science to manage and communicate data, information, knowledge, and wisdom in nursing practice. NI supports consumers, patients, nurses, and other providers in their decision-making in all roles and settings. This support is accomplished through the use of information structures, information processes, and information technology (p. 1).

While this definition includes integration of computer science, it is important to note that the specialty’s goal is focused on optimizing information management and communication to improve health at every level - from the individual person to the population at large (ANA, 2008).

Data to Wisdom

The ANA definition of nursing informatics includes special emphasis on the concept continuum of data, information, knowledge, and wisdom. Adopted from work by Graves and Corcoran (1989) and expanded by Nelson as described in Englebardt and Nelson (2002), the continuum is represented by a set of four sequentially overlapping circles rising along a trajectory of increasing complexity (y-axis) and increasing interactions and inter-relationships (x-axis) (Figure 1). Data are the most elemental named components. A unique uninterpreted data element may have multiple meanings. For example, the number 100 may refer to a person’s age, their weight, or their diastolic (or systolic) blood pressure.

As data are collected, organized, and grouped with other data, they become transformed into information. For example, the numbers 100, 95, and 90 graphed together can be interpreted as a downward trend and become information. Combined with other data such as unit of measure (pounds), height, and age (more numeric data), more information may be interpreted and a pattern begins to emerge: A petite 85-year old woman is gradually losing weight. The nurse integrates and analyzes that information in its current context – the woman’s husband died recently and she says she has lost her appetite. When the nurse combines that information with previous personal nursing experience and published literature about depression in the elderly, the picture of what is known about the patient’s story is revealed. Information is transformed to knowledge. This knowledge is then applied with the wisdom of understanding, and the nurse makes a recommendation for a referral with compassion for the patient’s individual situation. The data to wisdom continuum is a non-linear, fluid process, with each component in the continuum being informed by and informing the others, to help support the nurse’s decision making.
The informatics concept, continuum of data to wisdom, fits hand-in-glove with the practice of telephone triage nursing. Informatics is a foundation for today’s telephone triage nurses and application of the concepts of data, information, knowledge, and wisdom to the specialty are illustrated in Figure 2, The Model of Care Delivery in Telephone Nursing Practice, developed by Greenberg (in press).

The three phases of the model, along with the constant flux of the Interpreting component, demonstrate how telephone nursing practice (TNP) fits into the cognitive cycle of the data to wisdom continuum. In Greenberg’s model, the telephone triage nurse is the knowledge worker who uses his/her expertise to capture data to organize, interpret, and understand the information. The nurse links the raw data with domain knowledge – bringing the knowledge to the point of care where it is combined with wisdom to provide the client with safe and compassionate care. Informatics provides an infrastructure for the practice, supporting the delivery of nursing care to the patient.

The process can be visualized as we observe telephone triage nursing practice. A nurse uses computer applications that are not auxiliary tools but rather full partners in nursing practice. These applications may include the triage software and clinical content, decision support systems, and voice and text communication technologies. In addition, administrative tools such as applications for email, time and attendance, scheduling, and even facility-based capacity management or bed control may be used. The toolkit of information systems integral to the nurses’ work seems to expand daily, and it is critical that each telephone triage nurse possess the informatics competencies to use them safely, effectively, and efficiently.

Multiple sources cite the need for nurses’ informatics competencies. The ANA (2001) has stated that “…informatics competencies are needed by all nurses whether or not they specialize in nursing informatics…all nurses must be both information and computer literate” (p. 24). This posi-
What Are Informatics Competencies?

Although specific definitions vary, informatics competencies can be generally identified as knowledge and skills in three areas: computer literacy, information literacy, and information management, which may include a professional development and leadership focus related to informatics solutions. The first research-based master list of informatics competencies for nurses was published by Staggers, Gassert, and Curran (2002). They identified nursing informatics competencies for four levels of nursing practice: beginning nurse, experienced nurse, informatics specialist, and informatics innovator. Specific competencies were identified for each practice level and categorized as computer skills, informatics knowledge, and informatics skills.

In ANA's updated Nursing Informatics: Scope and Standards of Practice (2008), informatics competencies are categorized in three areas: computer literacy, information literacy, and professional development/leadership. Specific knowledge and skills in these three areas are identified for each of the four levels of practice described by Staggers et al. (2002) and for each of the nursing informatics functional areas (e.g., administration, leadership, and management; development; coordination, facilitation and integration; etc.) defined by the ANA (2008). In the resulting Functional Area-Competency Framework matrix, the category of information literacy competencies includes both informatics knowledge and informatics skills.

In April 2009, the TIGER Nursing Informatics Competencies Model was published as a result of the TIGER Informatics Competency Collaborative (TICC) which was “formed to establish the minimum set of informatics competencies for all practicing nurses and graduating nursing students” (TIGER, 2009, p. 14). The model is composed of three parts: 1) basic computer competencies; 2) information literacy; and 3) information management (including use of an electronic health record), and it is “aligned with existing sets of competencies that are maintained by standard development organizations” (p.16). This approach supports the sustainability of the model as the standards evolve. According to the TICC, professional awareness and responsibility for learning are key to achieving informatics competence – nurses must be “aware of the need to master informatics and ready to learn new skills…” (p. 15).

Computer Literacy

In general, computer skills, computer literacy, and basic computer competencies all refer to the psychomotor use of computers and learning basic hardware and software functionality. From keyboarding to navigation within the clinical content and protocol software that supports clinical decision making, mastery of basic computer skills is an absolute job requirement for nurses in telephone triage nursing practice.

Information Literacy

Information literacy is focused on recognizing when information is needed, identifying what information is needed and being able to locate, evaluate, organize, and use the information effectively (American Library Association [ALA], 2000). The ALA (2000) has established and maintains the standards for information literacy and the TICC recommends the use of these standards. This set of competencies is particularly applicable for telephone triage nurses and closely mirrors many of the components within Greenberg's Model of Care Delivery in Telephone Nursing Practice (in press). As the nurse moves through the phases of gathering information, cognitive processing, and output, information literacy skills are implemented. The telephone triage nurse recognizes the need for information and accesses computer-stored data to support critical thinking and clinical decision making for management of the patient’s situation.

Information Management

The remaining competencies are bundled by different sources into informatics knowledge and informatics skills (Staggers, et al, 2002), information literacy, inclusive of informatics knowledge and skills (ANA, 2008), and information management (TIGER, 2009). These competencies include a broad set of knowledge and skills ranging from the nurse’s interaction with electronic health records to nursing’s involvement in the system development life cycle and application of privacy and security standards in daily practice. Again, the telephone triage nurse must demonstrate information literacy and management competencies.

Almost simultaneously, the telephone triage nurse interviews the patient, accesses information from multiple online tools, and interprets and integrates those data and information for understanding. This skillful information management results in appropriate interventions individualized for each patient. Evaluating the nurse's information management competency may include measuring his/her use of available tools as well as patient satisfaction with the experience. The telephone triage nurse's informatics skills also include awareness and understanding of how using information systems impacts workflow. As these skills grow, so will the nurse's recommendations for changes that streamline the telephone triage systems and workflow processes.
Informatics for Every Nurse

Informatics competencies are needed by every nurse, including nurses who work in the specialty of telephone triage nursing practice. Nurses in this growing specialty are accountable to provide the best evidence-based care advice possible by transforming the data they collect to information, interpreting and integrating that information with experiential and external knowledge, and applying that knowledge with wisdom to address the patient’s unique needs. As telephone triage nurses become more aware of the importance of informatics competencies in their practice, they will rise to the challenge of personal responsibility for professional development of those competencies. Florence Nightingale didn’t use a telephone, but there is no doubt that she would recognize the role informatics competencies play in providing safe, effective, efficient, patient-centered, equitable care.

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References


Instructions for Continuing Nursing Education Contact Hours

Data to Wisdom: Informatics in Telephone Triage Nursing Practice

To Obtain CNE Contact Hours

1. For those wishing to obtain CNE contact hours, you must read the article and complete the evaluation through AAACN’s Online Library. Complete your evaluation online and print your CNE certificate immediately.
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   - Click on Viewpoint under “Publications” on the left hand side of the screen.
   - Simply read the Viewpoint article of your choosing, and complete the online evaluation for that article.

2. Evaluations must be completed online by October 31, 2011. Upon completion of the evaluation, a certificate for 1.0 contact hour may be printed.

Objectives

The purpose of this CNE article is to identify the role of informatics in telephone triage nursing practice. After studying the information presented in this article, you will be able to:
1. Articulate a working definition of nursing informatics.
2. Describe the informatics concept continuum of ‘data to wisdom.’
3. List core informatics competencies applicable for every telephone triage nurse.

This educational activity has been co-provided by AAACN and Anthony J. Jannetti, Inc.

Anthony J. Jannetti, Inc. is accredited as a provider of continuing nursing education by the American Nurses’ Credentialing Center’s Commission on Accreditation (ANCC-COA).

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These articles were reviewed and formatted for contact hour credit by Sally Russell, MN, CMSRN, CPP, AAACN Education Director.
The global economic crisis is affecting nearly everyone, either directly or indirectly. Neighbors, friends, and family may be losing their jobs or homes. With job layoffs, thousands are losing their employee benefits, including health insurance. The impact on individuals and families may be devastating.

The loss of health insurance is also having a dramatic impact on the health care industry. Routine clinic visits and all elective surgeries are on the decline. Patients are defining essential care differently than they did just one year ago. Preventive care and disease management are becoming less of a priority for people who are struggling to feed their families.

Clinic waiting rooms are emptier and access to providers for a same-day appointment is even possible. Though there may be fewer clinic visits, phone calls to nurse call centers and clinics are soaring. In an attempt to reduce health care expenses, patients and families are picking up the phone and requesting “home care” advice. There is a goal to avoid a clinic visit or emergency room care. However, home management of symptoms may not always be the most appropriate (or safest) level of care. In consideration of the economic climate, telephone nurses must not compromise advice at the request of the caller.

Call centers and clinics must anticipate that call volumes will increase as a result of this time in history. However, after this crisis begins to resolve, it is likely call volumes will remain high. One reason is that individuals who have lost a job with benefits may not have health insurance benefits in their new job. Employers will cut benefits to remain afloat and may not reestablish them after the economy recovers. Secondly, after individuals “discovered” that many issues can be resolved successfully with a professional telephone nurse, they will call again (and again). Third, callers will share good outcomes with friends, relatives, co-workers, neighbors, and many others. Patients who did not know that they could “call” instead of making an appointment will begin to use this route to solve issues. The word will spread, and call volumes will continue to increase.

With this unexpected, economy-driven dilemma, the following telephone nursing standards must be maintained to provide safe, quality care.

1. **Process calls thoroughly**

   Call volume is high. Voicemail is filled with messages, coming in faster than you can respond to them. You are beginning to feel overwhelmed as you see the callbacks piling up. Every caller seems to need immediate attention. You are beginning to feel rushed and overwhelmed and your focus is waning.

   **Action:** Focus on each caller, one at a time. Triage the symptoms and identify any emergency promptly. When you execute attentive focus, you will handle calls more efficiently and safely. You will then be able to take more calls.

2. **Do not downgrade dispositions**

   “Downgrading a disposition” is a telephone nursing term meaning advice is reduced to a less urgent recommendation. For example, you have completed an assessment and determined a patient needs to be seen within four hours, however the caller informs you that she does not have transportation and cannot be seen until the next day, so the nurse changes the recommendation. This is not appropriate. Callers may plead or try to persuade you to provide home care advice instead of making an appointment. Callers may even get angry or tearful, explaining that an appointment is not affordable.

   **Action:** Be empathetic but clear that the appropriate level of care is recommended based on assessment and nurse resources or decision support tools and it cannot be compromised. Be aware of community resources that may be available for callers (e.g. low income clinics).

3. **Assign trained, experienced, and licensed staff**

   With a rapidly increasing volume of calls and budget restrictions, an easy “fix” would be to assign various staff, though inexperienced and untrained, to manage patients by phone. This response may make sense but is problematic for many reasons.

   First, this is a Pandora’s Box of professional scope issues. Successful, safe, and efficient triage is possible with well-trained and experienced registered nurses only. Unlicensed personnel may not assess symptoms. Secondly, managing symptoms over the phone is challenging, especially in a climate where patients are avoiding routine care and potentially self-regulating prescribed medication to further reduce costs. Acuity may be higher and hidden agendas more prevalent. Third, many staff are uncomfortable managing patients by phone. This discomfort may be the result of inadequate training or lack of resources.

   **Action:** We must keep the American Academy of Ambulatory Care Nursing (AAACN) Telehealth Nursing Administration and Practice Standards front and center to guide our practice. This is even more important when telephone services are experiencing record call volumes.

   Standard III (Competency) states, “Telehealth nurses demonstrate competency in clinical knowledge, critical thinking, and interpersonal and technical skills to provide care that is evidence-based, safe, effective, patient-centered, timely, efficient and equitable” (AAACN, 2007, p. 8). The competent telephone nurse must have “clinical knowledge in disease prevention, wellness, health risk assessment, self-care management and health education.” In order to safely and efficiently manage telephone encounters, the nurse must execute the nursing process and access clinical decision making tools to guide each call. Excellent communication skills are essential. All patient encounters must be accurately documented. This is essential especially when call volumes are high and there may be a tendency to shorten calls to make documentation more brief.

4. **Be prepared for this shift in health care delivery**

   As discussed earlier, during this period of time, utilizing telephone triage services will prove to be a new venue of care for many patients who were unaware of this mode of care.
Individuals will have symptoms triaged and follow the advice they are given with an end result of high satisfaction. And, at times, unnecessary clinic or emergency room visits will be avoided. As the appropriate level of care is recommended, callers will continue to access care by phone as an initial step in managing their health needs. It is anticipated that call volumes will continue to increase as these “new” patients and family members discover an alternate vehicle for care.

**Action:** Managers and administrators must evaluate their current staffing models while assessing their call volumes and patterns. The economy’s impact on call centers is making it difficult (or impossible) to increase staffing hours or hire/train new staff. There is a need to utilize fiscally responsible planning and creative strategies while maintaining staff and keeping patients safe.

Standard II (Staffing) maintains, “Sufficient numbers of competent telehealth registered nurses are available to meet the patient care needs for the telehealth practice setting. Staffing models address the complexity of telehealth encounter care needs while maintaining a safe and caring work environment” (AAACN, 2007, p. 7). Managers who are responsible for telephone nursing must be consistently aware of fluctuating call volumes and be able to provide sufficient nurses to “address the quantity, quality and complexity of telehealth encounters.” Telephone nurses should provide feedback to managers about staffing issues and engage in collaborative problem solving when necessary.

We are in the midst of a whirlwind of changes and shifts as the economy challenges our society in many ways and at different levels. At times, the ground beneath us feels unsteady. As telehealth nurses, we can remain steady by utilizing our professional practice tools — our education, licensure and training; standards of practice; decision support resources; and collegial support.

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**Reference**

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President’s Message
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- Nursing Community Statement on Healthcare Reform that urged Congress over a seven-year period to invest $2 billion in the Title VIII Nursing Workforce Development Programs.

I think you will agree that these are all important legislative efforts to ambulatory care nurses.

Because the Joint Commission is such an important part of our members’ regulatory lives, we have had a member on the Joint Commission Professional and Technical Advisory Committee (PTAC) for several years. Our current representative is Maureen Power, RN, MPH, LNC. This position provides great visibility for AAACN and ensures that ambulatory care nursing is at the table in terms of setting standards and recommending improvements in the accreditation process.

AAACN also initiated a collaborative relationship with ANCC in developing the Ambulatory Care Nursing Certification Exam. Since AAACN did not have the financial resources to develop its own certification exam, we collaborated with ANCC to make this exam a reality for our specialty. Renee Zaccardi, MSN, ANP, is our representative on ANCC’s Content Expert Panel for the exam. In these hard economic times, the value of certification helps our nurses stand out. It demonstrates their qualifications and commitment to ambulatory care nursing. Certification can be instrumental in holding on to jobs and differentiating qualifications from other nurses when considering salary increases, promotions, and other job opportunities.

These are just some of the ways AAACN members advocate for you, the ambulatory care nurse. We can’t continue this work without each individual member. As your President, I thank each of you for your continued membership and the countless hours of volunteer time you commit to creating our high-quality products and increasing the value-added benefits of your membership.

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