



DNA Reporter

The Official Publication of the Delaware Nurses Association

Constituent member of ANA

The mission of the Delaware Nurses Association is to advocate for the interest of professional nurses in the state of Delaware. The Delaware Nurses Association is dedicated to serving its membership by defining, developing, promoting and advancing the profession of nursing as an art and science.

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Guest Editor



Nursing and Technology

Kim L. Scott BSN, RN earned her BSN from Salisbury State College (now Salisbury University). For seventeen (17) years, Kim worked as a nurse in Medical-Surgical, Operating Room and Maternal Child Health (including NICU and Pediatrics) areas. She has also held Nursing Leadership roles varying from Charge Nurse to Interim Director. Led by her experiences as 'Super User' of early electronic systems, Kim decided in 2000 to pursue a career as a nurse in Information Services. She is currently a Nursing Informatics Analyst at Bayhealth Medical Center where she is involved in the Electronic Documentation Committee, the Surgical Services Executive Committee and Surgical Operations Workgroup. Kim is a member of ANIA, DNA and ANA. Committed to active participation in User Groups and Special Interest Groups, she has presented at National Conventions. Kim can be reached by email at kim_scott@bayhealth.org or at her office at (302) 744-6226.



Kim Scott

Welcome to the Fall edition of the DNA Reporter. When the opportunity to serve as Guest Editor of the "Nursing and Technology" edition presented, a rapid sequence of thoughts ensued. First it was, 'Hmm, that could be fun' which quickly gave way to "but you're the most technologically-challenged technology professional around!" But as I allowed myself to seriously consider the opportunity, potential article topics began erupting like popcorn in my brain! Suddenly, it was "So many possibilities—how do I decide which topics to pursue?"

As my mind continued to churn and whirl, one thing became clear: Our edition needs to be as diverse as our Delaware nurses. In keeping with that spirit, we'll hear from nurses in home, ambulatory, long-term, and acute care settings. Nurses working at the state level to help us connect with one another. Nurses performing analytics supporting our practice choices sharing the impact technology has had on our outcomes. (We even had our Military nurses represented—that is until our author was deployed overseas!) Delaware nurses representing diversity in practice with one thing in common—our theme.

Spoken separately, "Nursing" or "Technology" conjures up one set of mental images. Combine them into our theme—Nursing and Technology—and the images dramatically change. Uttered as a phrase, few words have the potential to cause such a wide array

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Executive Director's Column



Sarah Carmody

Sarah J. Carmody
Executive Director

Keep moving forward.
~ Walt Disney

Your Delaware Nurses Association is moving forward. So far this year, we have accomplished a lot. We had a successful Spring Conference with Becky Patton, ANA President as the keynote. We had a successful Cultural Competency Series and HIV educational program. We had a successful Medicine Take Back event at Christiana Hospital. In July, I know that we will have a beautiful and successful celebration recognizing Nursing Excellence. And, our legislative committee has introduced legislation to allow APNs to write for handicap placards and to pass title protection. As I write this I don't know if these two pieces will pass, but I do know that we will keep moving forward.

Health care reform is the topic of discussion both nationally and state-side. With budget cuts, layoffs and changes to medical coverage, nurses have the opportunity to make a difference both in policy making and as an advocate that understands the complexity of the health care system. This year, the Delaware General Assembly created the Adult Correction Healthcare Review Committee.

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of responses—everything from sheer excitement and joy to incapacitating fear. Powerful phrase, huh!

But the real power lies behind the words. Gone are the days when “technology” meant moving from glass to digital thermometers. Gone are the days when ‘Virtual Care’ was a science-fiction scene on Star Trek—it’s now science-fact, as we’ll read about in an article on virtual intensive care. No longer reserved for big teaching centers, technology is being embraced everywhere. We’ll learn how Electronic Medical Records are employed in ambulatory care, home care, long-term and assisted-care settings as well as acute care facilities within our communities.

Skeptics argue, “What about the patient?” (What a bizarre question!) Delaware nurses are combining the art of Nursing with the science of Technology. Read how Nursing Educators meet the challenge of preparing the nurses of our future. (Things certainly have changed since I was a Nursing Learning Lab Assistant in college!) Then, consider what one Long-term and Assisted Care Nursing Leader shares with us as she reflects on technology in her setting—including what it means on a personal level to the patients. Need more? How about nurses using fun, recreational technology as therapy in the plan of care? Without a doubt, patients are front and center as we’ll discover in an article discussing technological advances in Patient Education.

The ‘First State’ is once again leading the nation by developing a centralized health information network—the first state wide initiative of its kind. Learn how healthcare providers throughout the state are sharing information to improve health care in the First State. Learn, too, the impact technology has had on patient outcomes and the quality of care afforded patients benefiting from Nursing and Technology.

Nursing has and always will be about the patient. I’m convinced reading this “Nursing and Technology” edition will shatter any doubt.

In closing, I’d like to publicly thank the tremendous people that contributed their time and talent to this edition. What an incredible collection of Professionals! All balanced deadlines, job commitments, graduations, personal lives, Go-lives to share their stories allowing us to see a glimpse of what Nursing and Technology in Delaware is all about.



Vision: The Delaware Nurses Association is dedicated to serving its membership by defining, developing, promoting and advancing the profession of nursing as an art and science.

Mission: The Delaware Nurses Association advocates for the interest of professional nurses in the state of Delaware.

Goals: The Delaware Nurses Association will work to:

1. Promote high standards of nursing practice, nursing education, and nursing research.
2. Strengthen the voice of nursing through membership and affiliate organizations.
3. Promote educational opportunities for nurses.
4. Establish collaborative relationships with consumers, health professionals and other advocacy organizations.
5. Safeguard the interests of health care consumers and nurses in the legislative, regulatory, and political arena.
6. Increase consumer understanding of the nursing profession.
7. Serves as an ambassador for the nursing profession.
8. Represent the voice of Delaware nurses in the national arena.

Executive Director's Column continued from page 1

The Committee will be responsible for reviewing all matters relating to inmate healthcare services, inmate deaths and healthcare contracts that provide for inmate care. DNA was requested to submit representatives to the Governor to be approved by the Senate. Congratulations to Holly Wright! Holly will be representing nursing and the DNA on this committee. Thank you to all that applied. Without the dedication of our members, we could not move forward as an organization and have a voice on state and national healthcare decisions.

The new Delaware Nurses Association license plate was created to show pride in nursing. To move forward with production, we will need to have 200 applications to submit to the DMV. The DNA will reserve the numbers 1-20 to be raffled off in the near future. The cost of the license plate is \$10 plus \$40 to go to support the development of the Delaware Nursing Foundation and scholarships. Plate numbers will be assigned in the order applications are received.

To continue this positive forward movement, please consider participating on one of our committees. As the saying goes, many hands do make light work. Check the DNA website or call the office for information on committee meetings and conference events. Your ideas and energy are needed to keep moving nursing and the Association forward.



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Nominating Moonyeen “Kloppy” Klopfenstein, MS, RN, IBCLC, CPUR	Professional Development Karen Carmody, MSN, CRNP
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Legislative Vacant	Communications Heidi LeGates, MSN, RN, NEA-BC Bonnie Osgood, RN-BC, MSN, NE-BC
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Nursing Healing Our Planet (NHOP)

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Betty Stone, RN, MS, OCN
Diane Talarek, RN, MA, CNA

Executive Director
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The *DNA Reporter* welcomes unsolicited manuscripts by DNA members. Articles are submitted for the exclusive use of *The DNA Reporter*. All submitted articles must be original, not having been published before, and not under consideration for publication elsewhere. Submissions will be acknowledged by e-mail or a self-addressed stamped envelope provided by the author. All articles require a cover letter requesting consideration for publication. Articles can be submitted electronically by e-mail to Heidi LeGates, MSN, RN, NEA-BC @ Heidi_Legates@Bayhealth.org or Bonnie S. Osgood, RN-BC, MSN, NE-BC, @ bosgood@christianacare.org.

Each article should be prefaced with the title, author(s) names, educational degrees, certification or other licenses, current position, and how the position or personal experiences relate to the topic of the article. Include affiliations. Manuscripts should not exceed five (5) typewritten pages and include APA format. Also include the author's mailing address, telephone number where messages may be left, and fax number. Authors are responsible for obtaining permission to use any copyrighted material; in the case of an institution, permission must be obtained from the administrator in writing before publication. All articles will be peer-reviewed and edited as necessary for content, style, clarity, grammar and spelling. While student submissions are greatly sought and appreciated, no articles will be accepted for the sole purpose of fulfilling any course requirements. It is the policy of *DNA Reporter* not to provide monetary compensation for articles.

President's Message

The Nominators are the Real Heroes & Where Would We Be without Technology



Norine Watson

As I write this message we are preparing for the Excellence in Nurse Practice Awards which are co-sponsored by the DNA and DONE. These awards are inspiring in many ways... one is just the volume of nominations, this year we received approximately 60 nominations spread across the seven categories. But another that always touches my heart is the passion, commitment and follow-through of the

nominators. This group of individuals ensures that excellence in nursing practice is recognized and promoted. They are the ones who pay attention to deadlines, the application process, and carefully word their nominee's accomplishments so they are shown at their very best. Without them there would be no Excellence in Nurse Practice Awards. My thanks and heartfelt gratitude goes out to everyone who submitted a nomination this year!

Once again the use of technology in nursing has reached to the top of the priority list the DNA Reporter. Nurses have been not only witness to but also participants in the technological explosion in the healthcare workplace. From my perspective the technology "invasion" started with the change to digital thermometers, remember they replaced the

glass-mercury ones and then very gradually IV pumps that electronically monitored infusion rates crept in. It was easy to recognize this technology as tools that supported nurses to provide safer patient care. If you fast-forward to today healthcare technology use has advanced dramatically. Now nurses are using both, electronic communication and also documentation systems, remote monitors, and interactive alarms. Patients and their families' can access the Internet from their bedside and complete patient education programs from their TV screens that are automatically documented in their electronic medical record. Patients (and nurses) can be tracked as they move through the health care world expediting patient flow and through put. Nurses have (at first) adapted to and are now crafting and innovating this ever-changing practice environment.

A role that has emerged from this invasion is that of the Informatics Nurse. In 1994, the ANA defined the scope of practice for nursing informatics as a specialty that is a combination of nursing science, computer science, and information science used in identifying, collecting, processing and managing data and information to support nursing practice, administration, education, research and the expansion of nursing knowledge and wisdom in nursing practice. I think you will enjoy this issue in which several informatics nurses will be sharing their work to help nurses both adapt to and craft the next generation of health care technology.

Adult Correction Healthcare Review Committee

The Delaware General Assembly has created the Adult Correction Healthcare Review Committee. This Committee serves in an advisory capacity to the Commissioner of the Department of Correction. This Committee will advise the Commissioner on all matters relating to the provision of inmate healthcare services, the review of all inmate deaths and autopsies relating to those deaths, the construction of healthcare contracts that provide inmate healthcare services, and the review of all statistics relating to inmate healthcare.

The Committee will consist of seven members

with one representative from each of the following organizations: the Delaware Nurses Association, the Delaware Medical Society, the Delaware Psychiatric Society, the Delaware Psychological Association, the Delaware State Bar Association, an expert in the field substance abuse treatment and the Bureau Chief of Correctional Healthcare Services.

Congratulations to DNA member Holly Wright FNP-BC who was selected by the Governor's Office to participate on this committee. Thank you to those who responded to the request to represent the Delaware Nurses Association on this Committee.

March-April 2009 Program/ Provider Approvals

Provider Approvals:

- A.I. DuPont Hospital for Children
- Bayhealth Medical Center
- Beebe Medical Center

Program

- DSNA Spring Dinner Conference-DE School Nurses Association
- Asthma Webinar-American Lung Association
- Shrinking Our Environmental Footprint: What Nurses Can Do-Omicron Gama-Wilmington University
- End of Life Planning -Delaware Hospice

Upcoming Reporter Themes

- November/December/January 2010
Palliative Nursing
- February/March/April 2010
Health Care Economics
- May/June/July 2010
Environmental Impacts of Health Care
- August/September/October 2010
Long Term Care
- November/December/January 2011
Legislation

New ANA CEO

The Board of Directors of the American Nurses Association (ANA) takes great pride in announcing that Marla J. Weston, PhD, RN has been named chief executive officer (CEO), effective June 14, 2009. As CEO, Weston will be responsible for providing visionary, strategic, and progressive leadership for the ANA enterprise. In her new role, Weston will also serve as CEO of the American Nurses Foundation (ANF), the research, education, and charitable arm of ANA.

Nurse Excellence 2009

Congratulations to all of our 2009 Nurse Excellence nominees. This year's Nurse Excellence Awards Banquet will be held July 16, 2009 at the Modern Maturity Center in Dover. Our keynote speaker will be Rita Landgraf, Secretary of Delaware Health and Social Services (DHSS).

Acute Care-Hospital Based

- Karen Bell
- Jody Bradley
- Michelle Cammisa
- Caryn Chasanov
- Angel Dewey
- Tasheema Galarza
- Walle Adams-Gerdts
- Meghan Holland
- Dorothy Jones
- Tina Keane
- Staci Manning
- Shannon McInerney
- Kimberly McKay
- Christine McKeown
- Rebecca Schorn
- Dawn Spader

Long Term Care-SNF, Hospice

- Kathy Bradley
- Nancy Farmer
- Jessica Hawbaker

Community-Based Care-Home Care, Office, School

- Rebecca Gravatt
- Patricia Guilday
- Elizabeth Matthey
- Karen Karchner

Advanced Practice Nurse

- Deena Brecher

Ronald Castaldo

- Cindy Drew
- Ruth Lebet
- Cathy Moore
- Barbara Sartell
- Maureen Seckel
- Deb Warshawsky

New Nurse Graduate

- Isabel Pearce
- Sabrina Pearson
- Jaime Ritterhoff
- Kristin Santora
- Jessica Sapp

Nurse Leader/Manager

- Ann Marie Ackerman
- Debbie Fattori
- Marianne Foard
- Terry Foraker
- Dawn Horn-Fowler
- Alana King
- Heidi Legates
- Terri McEntee
- Ken Molczan
- Francis D. Smith
- Louanne Stratton
- Connie Trusko
- Claire Walsh

Nurse Educator

- Elizabeth Bayley
- Betsy Bruemmer
- Dyane Bunnell
- Patricia Melcer
- Frances Muldoon

Wit and Wisdom

The happiest people don't necessarily have the best of everything. They just make the best of everything.

~author unknown

If you really want to do something, you'll find a way; if you don't, you'll find an excuse.

~author unknown

The true test of a first-rate mind is the ability to hold two contradictory ideas at the same time.

~F. Scott Fitzgerald

Delaware Nurses Association Consent to Run

Nominations are open for nominations for the following positions on the Board of Directors for the Delaware Nurses Association.

- 1. President-Elect**—This position serves concurrently as an elected ANA Delegate. The President-Elect works in close collaboration with the President and actively participates in committees of the DNA. This is a one (1) year term until the president position is assumed. The president's term is for two (2) years with an additional one (1) year as past-president.
- 2. Treasurer**—The Treasurer is required to monitor and report on the finances of the association to the Board. The treasurer also reports on the finances at the general membership meetings. This is a two-year term.
- 3. At Large Director/Alternate ANA Delegate** (2 positions) The Alternate assumes the duties of the delegate in the event that the delegate is cannot attend the national House of Delegates. This is a two-year term.

Eligibility Requirements for Candidates

Each candidate¹ must be a member of the Delaware Nurses Association in good standing. Interested members should have some experience participating in the organization. Full *Members* as defined in the Association bylaws is described as:

1. A person who has been granted a license to practice as a registered nurse in at least one state, territory, possession or the District of Columbia in the United States, and who does not have a license under suspension or revocation in any state, territory, possession or District of Columbia in the United States.
2. A person who has completed a nursing education program that qualifies the applicant to take a DNA-accepted nursing board examination for registered nurse licensure as a first time writer.
3. Membership is unrestricted by consideration of age, creed, disability, gender, health status, lifestyle, race, nationality, religion, or sexual orientation.
4. Minimum of one (1) year membership

Work of the Board of Directors

The Board of Directors, a corporate body composed of elected members, serves as the agent for members of the DNA. Each member of the Board must uphold the mission, vision and goals of the Association. The functions of the Board include but not limited to the following²:

1. Exercise the corporate responsibility and fiduciary duties of the Association with applicable provisions of law.
2. Provide for implementation of action and directive of DNA membership.
3. Establish policies and provide for the transaction of business and coordination of association activities in the interim between the general membership meetings.
4. Provide for adoption of financial policies.

Consent to Run

I give consent to have my name placed in nomination for an elected position for the Delaware Nurses Association. If elected, I will be free to fulfill my commitment as defined by the DNA bylaws and will be available to attend meetings.

Signature _____

Date _____

Name (please print) _____

Address _____

Phone (work) _____

(home) _____

Please supply the following information to be printed and distributed to the membership prior to the elections. Please include an electronic photo that will be printed with your brief biography.

Educational Preparation:

Current Employer:

Current Position:

Employment background in nursing:

Current or previous DNA involvement:

Position statement (75 words or less):

Please contact the Delaware Nurses Association with any questions at (302) 998-3141.

Role of the Board of Directors

Members of the Board of Directors are the leaders of the Association. They are responsible for ensuring that all decisions are made in the best interests of the Association. They must ensure that the Association will be handed on to succeeding generations with its strengths intact or improved, and its mission, vision and goals well supported.

Time Commitment

Meetings of the Board of Directors shall be held at least four (4) times annually at a time and place determined by the Board of Directors. Candidates should be able to attend board meetings as called by the president, general membership meetings, and national meetings (as applicable for the position). Special meetings and ad-hoc committee assignments would be in addition to those commitments. Added time commitments vary depending on the depth to which individual issues are pursued.

Nomination Procedure

Nomination forms are available on the Delaware Nurses Association website (www.denurses.org). They are also available from the Delaware Nurses Association, 5586 Kirkwood Highway, Wilmington, Delaware 19808. To request a form by phone, call (302) 998-3141 or (800) 381-0939.

The onus is on the person nominated to submit a *bona*

fide nomination form. That is, the candidate is responsible for ensuring that the form is complete and that the appropriate documentation has been provided.

All nominations are subject to a verification process by the Chair of the Nominating Committee. A nomination will be certified as correct only if all the following criteria are fulfilled:

1. The Candidate is a member of the Association in good standing.
 2. The nomination form includes the candidate's name, his/her consent to run.
 3. Candidate information is completed as instructed on the pages provided.
 4. The completed nomination form is received by the Delaware Nurses Association 5586 Kirkwood Highway, Wilmington, Delaware 19808, **by 4:00 p.m. on Friday, October 16, 2009**. Forms received after that date will not be considered.
1. Special, Associate and Honorary Members are eligible for candidacy. Criteria for each membership are outlined in the Delaware Nurses Association bylaws under Article V, Section 2.
 2. For full explanation of the functions of the Board of Directors can be found in the Delaware Nurses Association bylaws under Article VIII, Section 6.

Delaware Nurses Association Spring Conference



Professional Development Committee

Chair—Karen A. Carmody, RN, MSN, FNP-BC

It has been a busy spring and summer planning and carrying out several Continuing Education programs for Delaware nurses. Over one hundred DNA members attended the Spring RN/APN Conference *CURRENT ISSUES IN NURSING PRACTICE* held at the University of Delaware's Clayton Hall on April 30, 2009. It was the largest turn-out of DNA members to a conference/ membership meeting in many years. Thank you members! In addition to all our wonderful speakers, a special thank you goes out to all the hospital Chief Nursing Officers that participated in the day's events. ANA President, Ms. Rebecca Patton, visited hospitals and educational facilities before and after her ANA & YOU keynote speech. As always it was an honor to host Ms. Becky and we hope to see lots more of her. Every session was well attended and well received according to the learner evaluations.

In partnership with the Delaware Division of Public Health and the Delaware Academy of Family Physicians, the DNA provided a series of *Cultural Competency Workshops* for healthcare providers across the state from March through June 2009. Each workshop drew 30–50 multi-disciplinary health care professionals who actively participated in an energetic dialog with qualified speakers from around the region. The Professional Development Committee hopes to continue partnering with our professional colleagues to support other successful trans-disciplinary educational events.

On June 13, 2009 the DNA provided a free workshop for DNA members, the *Primary Care Provider's Role in HIV Care*, at St. Francis Hospital. This educational activity was supported by unrestricted educational grants from *Tibotec Therapeutics*, *Bristol Myers Squibb*, and *Gilead Sciences, Inc.* APN presenters included Janice Heinssen from Christiana Care HIV Early Intervention Services, Christopher Zebley from Brandywine Counseling, Inc., and Patricia S. Lincoln from the Pennsylvania/Mid-Atlantic AIDS Education Training Center. The goal of the workshop was to help primary care providers identify risk factors for and clinical conditions suspicious of HIV infection, define the role of the Primary Care Provider in HIV/AIDS identification, testing, and collaborative care with an HIV specialty provider for clients with HIV/AIDS, identify indications for ART medications, and become familiar with the function of the Delaware Needle Exchange Program for HIV Prevention & Detection.

Be sure to register now for the fall conference, *Promoting Best Practices in the Nursing Profession*, to be held October 22, 2009 at the Delaware Technical Community College Owens Campus in Georgetown, DE. Participants in this 2-track program will explore best practice in multiple aspects of the nursing profession, identify current trends in nursing practice, and develop knowledge/skills regarding nursing leadership and community resources while networking with their peers.

This committee meets regularly to design and implement continuing nursing education programs for all professionally licensed nurses in Delaware. If you have a special interest in nurses' continuing education, please consider volunteering to work with the planning committee to implement these and other Professional Development programs. Contact the DNA office at 302-998-3141.

DNA Fall Conference

Promoting Best Practices in the Nursing Profession

When: October 22, 2009
 Where: DTCC-Owen Campus, Georgetown, DE
 Time: 8:00am-4:30pm Registration 7:30am-8:00am
 Cost: DNA Members: \$60
 Non-Member: \$90
 Student: \$40

Registration available online at www.denurses.org.

The Delaware Nurses Association will be holding its annual fall meeting during lunch from 12:00pm-1:00pm. Conference topics/speakers subject to change without notice. For more information call (302) 998-3141.

Thank you to the Delaware Organization of Nurse Executive (DONE) for their financial support.

Conference Objectives

- Explore best practice in multiple aspects of the nursing profession
- Identify current trends in nursing practice
- Develop knowledge and skills regarding nursing leadership and community resources
- Network and Collaborate with peers

Keynote Speaker—Rosemary Mortimer, MEd, MSN, RN

Track 1	Track 2
CVD Prevention in Women	Managing Allergic Rhinitis: Controlling Symptoms and Improving Quality of Life A Nurse Practitioner Perspective Dr Sandra Gawchick (pharmacology)
Nursing's Role in Public Health Issues Kristin Bennett, RN, MSN	APN Legislative Update Janet Selway, DNSc, CRNP, RN
Diabetes Management Update Christina Trout, ACNS, BC, CDE (pharmacology)	Interpreting Clinical Journal Articles: Applied PK/PD, Statistics and Evidence Based Medicine Bill Lynch RPh (pharmacology)
WARNING: Medication Errors: Look-Alike, Sound-Alike Medications Bill Lynch, RPh (pharmacology)	Nursing Leadership 101 Kristopher Starr, ESQ
What is Evidence Based Nursing Practice? Robert Contino, EdD, MSN, RN	Succession Planning in Nurse Leadership Denise Westbrook, MSN, RN, CNE
Protect your Back with Safe Patient Handling Rob Donati, PT	Business of Nursing—Dollars and Cents Joan Tomas
Addiction in Troubled Times Kim Gerardi MSN, RN (pharmacology)	What the Employee Free Choice Act Means to Delaware Nursing Practice Jeff Lewin

6.0 Nursing contact hours offered/3.0 pharmacology contact hours offered

The Delaware Nurses Association is accredited as a provider of continuing nursing education by the American Nurses Credentialing Center's Commission on Accreditation.

Legislative Issues- 145th General Assembly

Senate Level

Senate Bill #86

AN ACT TO AMEND TITLE 16 OF THE DELAWARE CODE RELATING TO HEALTH AND SAFETY, INFORMED CONSENT AND HIV TESTING.

Synopsis: This Bill removes the stigma of HIV testing for pregnant women by including it in the standard battery of tests administered for all pregnant women. It will have the added beneficial effect of decreasing the rate of neonatal infection of HIV. It preserves the right of a pregnant woman to opt out of receiving the test.

Current Status: House Health & Human Development Committee 06/09/2009

Senate Bill #90 w/SA 2

AN ACT TO AMEND TITLE 16 OF THE DELAWARE CODE RELATING TO TANNING FACILITIES.

Synopsis: This Act will regulate indoor tanning facilities in the State. It creates a total ban on indoor tanning for any minors under the age of 14, unless it is medically necessary and prescribed by the specified practitioners. In addition, minors between the ages of 14 and 17 will be required to submit a consent form, signed by the parent or legal guardian in the presence of the tanning facility operator, before they are allowed to tan. This consent will need to be renewed annually. The Act also lays out record retention requirements for these consent forms. The Act will be known as the "Michelle Rigney Act", named after 22 year old Michelle Rigney of Newark, DE who lost her fight against Melanoma on June 17, 2008.

Current Status: House Health & Human Development Committee on 06/10/09

Senate Bill #138 w/SA 2

AN ACT TO AMEND TITLE 21 OF THE DELAWARE CODE RELATING TO MEDICAL CERTIFICATION FOR LICENSE PLATES AND PARKING PERMITS FOR PERSONS WITH DISABILITIES.

Synopsis: This Bill would permit physician's assistants who are supervised by licensed physicians

and advanced practice nurses who are employed by or who have a collaborative agreement with a licensed physician, in addition to physicians, to sign applications and renewal applications for license plates, and temporary and permanent parking permits for persons with disabilities.

Current Status: Senate Passed on 06/11/2009

House Level

House Bill #165 w/HA 1

AN ACT TO AMEND TITLES 11 AND 29 OF THE DELAWARE CODE RELATING TO THE ADULT ABUSE REGISTRY.

Synopsis: This act permits the Department of Health and Social Services to provide online access to the names and nature of the conduct committed by those persons who are actively listed on the Adult Abuse Registry as a result of substantiated findings of abuse, neglect, or financial exploitation.

Current Status: House Passed on 06/04/2009

House Bill #36

AN ACT TO AMEND TITLES 16 AND 29 OF THE DELAWARE CODE RELATING TO NURSING FACILITIES AND SIMILAR FACILITIES.

Synopsis: This Bill clarifies the role of the Community Legal Aid Society, Inc. (CLASI), designated for the past 30 years as Delaware's Protection and Advocacy Agency pursuant to federal law, in protecting patients and residents in nursing and similar facilities. As a complement to the existing protective system operated by the Department of Health and Social Services, CLASI is authorized to solicit and investigate reports of abuse, neglect, mistreatment and financial exploitation in covered facilities. Finally, the Bill deters interference and retaliation against persons cooperating with such investigations.

Current Status: House Passed on 06/09/2009

House Bill #37 w/HA 2

AN ACT TO AMEND TITLE 16 OF THE DELAWARE CODE RELATING TO THE MENTAL HEALTH PATIENTS' BILL OF RIGHTS.

Synopsis: This Bill adds various protections to the

Mental Health Patients' Bill of Rights Act, including safeguards in administration of restraint and requirement of an enhanced patient grievance system for DPC patients.

Current Status: House Passed on 06/09/2009

House Bill #39

AN ACT TO AMEND TITLE 16 OF THE DELAWARE CODE RELATING TO THE DEPARTMENT OF HEALTH AND SOCIAL SERVICES.

Synopsis: Currently statutory anti-retaliation and protective provisions for patients and others only apply to licensed long-term care (LTC) facilities. Only part of the Delaware Psychiatric Center (DPC) is a licensed LTC facility. This Bill, to protect all patients and employees at DPC, applies such protections to all the DPC facilities.

Current Status: House Passed on 06/09/2009

House Bill #112 w/HA 1

AN ACT TO AMEND TITLE 16 OF THE DELAWARE CODE RELATING TO HOSPITALS AND OTHER FACILITIES

Synopsis: This Bill allows each competent adult patient to receive visits in a Hospital or Nursing Facility from whomever the patient or resident desires, subject to restrictions set forth in the Bill. In addition, this Bill ensures that hospitals and other healthcare facilities defined in the Bill can maintain a safe environment by restricting visitations by those who pose a threat to patients and/or staff, or could interfere with patient care or the right of other patients to enjoy a non-disruptive environment.

In addition, this Bill requires the Hospital or Nursing Facility to honor advance health-care directives and any similar documents, subject to limitations set forth in the Bill. Furthermore, the Bill clarifies that hospital visitation rights created by this section do not supplant rights otherwise conferred by law. It also eliminates any inconsistency with existing visitation rights in licensed long-term care facilities while explicitly requiring adherence to advance health care directives and powers of attorney.

Current Status: Senate Passed on 06/11/2009

Sources: <https://www.legis.delaware.gov>

Technology Improves Team Communication and Coordination of Care in Home Health

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Care, as a faculty member for Delaware Technical and Community College's Respiratory Care program and a home care therapist, including Clinical Manager, over 14 years. He is currently a Clinical Analyst at Christiana Care Visiting Nurse Association working with staff with technology needs including electronic medical records, field laptops and telemonitoring equipment. He is also involved with the COPD telemonitoring program including Pulmonary Disease education. Tom can be reached by e-mail at tdelledonne@christianacare.org or at his office at (302) 327-5682.

Leslie Kaczmarczyk is a registered nurse with is BS in Business Administration. Leslie has over 20 years of home health care experience. Leslie has worked in various roles within Home health care and is also an independent consultant specializing in Home Health care informatics. She is currently employed by Christiana Care VNA as an informatics nurse. In this role she has implemented an automatic clinical record, trained clinical field staff in the use of the automated clinical record and is also involved with the development of the wound management program.



Leslie Kaczmarczyk

In 2000, a team of managers and clinicians at Christiana Care Visiting Nurse Association (CCVNA) gathered to develop a wish list for an automated clinical documentation system. Field use of a laptop, PDA or tablet would document clinical information and care planning. The team agreed they wanted:

- Timely access to each disciplines' assessments
- Pharmacology, and disease information
- Access to clinical procedures
- Less travel in and out of the office
- Reduction in use of paper

Nine years later, a significant effort in professional involvement, financial resources, and time produced a wish list that would transform technology. Lynn Jones, FACHE, President Christiana Care Visiting Nurse Association, affirms, "We are positioning for the future, to provide effective services for our patients at home, where patients prefer to receive their care."

The agency's new electronic medical record system software provides clinicians with electronic Point of Care patient information. This allows interdisciplinary collaboration to insure patient safety and appropriate care. For example, when the nurse admits a patient and assesses high mobility risk for falls, an electronic physical therapy referral is made. When a concerned patient calls at midnight, the on call nurse has immediate access to the patient's clinical record. Point of Care efficiently provides what is clinically necessary and allows quality care with fewer resources. The VNA has been using the product for over eight years and recently added enhancements to its capability.

Automated clinical documentation impacts work behavior. A study by Banner and Olney (2009) suggests that automated documentation allows nurses more time for direct patient care. Administrative time is decreased, allowing more time to develop a complete patient record. Future studies are needed to measure the efficacy of nurses and other disciplines using automated documentation in home care.

Current Point of Care home care nurse productivity has not provided a Return on Investment (ROI) for most agencies (Jackson, 2008). However, other benefits including assessment accuracy and care coordination offset this disadvantage. Integration with other software also has potential to improve productivity. Assessment accuracy has benefitted many agencies. For example, care planning and Medicare reimbursement are dependent on the assessment. A nurse admits a patient following hospital discharge for heart failure and the patient demonstrates no dyspnea. Diuretic therapy was reduced and the patient has returned to her home environment and diet. The next day, the therapist visits and discovers the patient exhibits dyspnea with

moderate exertion. Electronic communication occurs real time to the nurse, the physician is contacted and the initial assessment changed.

Coordination of care with more accurate assessment of patient needs and care planning, leads to improved clinical outcomes and reduced visit frequency. In a Prospective Payment System with the agency serving a majority of Medicare patients, coordination of care that reduces visit frequency is a deal-breaker! In addition, CCVNA staff report satisfaction with Point of Care and team communication. Trish Preston, RN, WCN, says, "It was well worth the wait for Point of Care and time spent. I will never go back to paper!"

Improve Patient & Staff Safety, Track Visit Time with Telephony

CCVNA Home Health Aides, Homemakers and Private Duty nurses use Telephony. The field staff use a touch tone phone to dial in at the beginning and end of each visit. This provides documentation that the visit was completed as well as documentation related to the visit. Recently a Telephony Messaging module was added allowing short messages to be sent to the field staff as they dial-in. This enhances timely communication with field staff related to important employee and patient issues. Rhonda Combs, RN MSN, Sr. Vice President of Home Health and Community Services, reports, "This technology allows us to track real time activity, enabling us to know if our HHA personnel have arrived as scheduled. Telephony is valuable for patient and staff safety, saving time and paper."

Telehealth is Changing Care Delivery

Christiana Care VNA has been using home telemonitoring since 2005. Telehealth includes telephone communication, telemonitoring, and telerriage. The telemonitor is a device placed in the home to transmit vital signs and other information via a telephone line or internet to a health care provider. Telerriage is using monitoring information to plan an action on trend information showing declines that previously went unrecognized. The technology changes home care delivery from scheduled visits to visits clinically indicated.

Present equipment provides a home care patient's vital signs through a central monitoring station. The patient is guided by audio to use the blood pressure cuff, pulse oximetry, and scale properly allowing timely telephone line transmission. In addition, the telemonitor asks the patient "yes/no" questions about their symptoms. Patient information is transmitted to the central monitoring station where a nurse evaluates the information. The nurse may telephone the patient to insure accuracy of results as well as communicate information about their symptoms, therapeutic diet or medications. The nurse can also use the data for clinical decisions including contacting the physician to discuss a plan of care change. The nurse can improve the outcomes of many more patients than she could physically visit, and the patient is empowered to self monitor by partnering with the nurse.

The VNA is evaluating a new generation monitoring system that provides interactive disease management questions with branching logic to enhance patients' understanding of their disease process. New monitors utilize high speed wireless technology, including video. Use of two way synchronous video enhances patient communication, lowers hospitalization and emergent care visits according to Dansky, Vasey and Bowles (2008). Technology is rapidly increasing our ability to stay connected to our patients, improving self efficacy and quality of life.

Like other technology, telemonitoring is an enabling tool and must be applied appropriately.

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CCVNA uses telehealth for patients identified at high risk for hospitalization, including those enrolled in the Heart Failure and COPD Disease Management Programs. Staff competency and coordination with physicians are critical to success. Ultimately, CCVNA patients receiving telehealth have improved acute care hospitalization, emergent care, visit utilization, dyspnea, and costs.

Manage in Real Time

Home care agency supervisors, administrative and quality managers depend on software to provide daily dashboard and longer term reports. This improves performance, validates the effectiveness of practice patterns, impact on payment and regulatory reform. With the help of automated reports designed specifically for home care, data is being used to predict future decisions as well as past conditions. For example, reports mining assessment items or patient behaviors are used to decide referral to hospice or identify a patient at high risk for hospitalization. This information is used to provide timely referral or risk reducing intervention.

In addition, CCVNA clinicians receive timely reports of their patients' outcomes, allowing supervisors and clinicians working together, to revise a plan of care so a declining patient can improve an area of function or prevent future rehospitalization.

Nurse Specialists Use Technology to Manage Wounds

Wound patients account for about 40 percent of all home care patients (CMS 2004) and technology allows wound certified nurses (WCN) to visit patients without leaving the office. Our agency employs 4 full-time wound care certified nurses, and they cannot visit all their patients. Wound care is the most costly home care. Our agency uses a new software program for wound assessment that includes digital photography. The nurse visits the patient at home, takes a digital photograph and uploads the image onto the automated wound assessment program. The photograph and assessment are electronically available to the office WCN and are evaluated at least bi-weekly. The WCN communicates wound progress to the visiting nurse and patient's physician to recommend treatment options. The WCN can determine if the wound is deteriorating and facilitate immediate action is required. This program benefits the patients by allowing all visiting staff to view previous wound pictures and assessments providing more consistent wound care. The patients benefit because previously, only the most complex patients were seen by the WCN.

Advance Nursing through Technology

As nursing moves to evidence-based practice, nurses are using computer database information to guide their decision-making. With technology

investment comes the potential for huge rewards in improved care delivery. CCVNA has realized improvements in:

- Patient and staff safety
- Team communication
- Reduced manual administrative tasks
- Efficient use of nurse specialists in wound and cardiac care
- Reduced hospitalization and emergent care
- Availability of reports for performance improvement

When the right technology is successfully implemented, efficiency is increased, reducing burden on nurses. They are free to concentrate on direct care. Technology, when at its best, improves home care delivery, improves staff efficiency and increases work fulfillment for home care nurses.

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Technology in the Long Term Care Setting

Linda G. Darling, BSN

Linda G. Darling earned her Diploma in Nursing from McQueen Gibbs Willis School of Nursing and her Bachelor of Science in Nursing from the University of Maryland Baltimore Campus. Over the last 18 years, Linda has been an acute care neuroscience nurse, public speaker, coordinator of stroke programs and support groups, clinical care coordinator, president of a nursing shared governance model and co-authored "Partnership 2000: A Journey to the 21st Century" in *Nursing Administration Quarterly*. Linda is currently the Director of Nursing at the Milford Center, a skilled nursing and rehabilitation center in Milford Delaware. In more than six years with this company, she has been involved in the implementation of person-centered care, a system wide clinical IT program, and the corporate Leadership Development program for training new Directors of Nursing and Administrators. Linda can be reached by email at Linda.Darling@genesishcc.com or at her office at 302-422-3303



Linda Darling

Walk down the hallways of any long term care facility today and what you see might surprise you! In an Activities Center, you may see a group of residents watching a special program on a large flat screen TV, munching snacks and enjoying the socialization just like they might have done in their former homes. In another wing, you may see a short term rehab patient, taking a break from physical therapy and surfing the internet on her laptop, connected to a wireless system. No matter where you go in the building, you may see nurses, nursing assistants, therapists, and physicians all documenting care in the patient's record utilizing an array of desk, wall and portable computers. Advancing technology, fueled by culture change and a growing diverse population, is transforming the traditional nursing home.

The long term care industry has been undergoing a time of tremendous growth and change. Culture change has brought about a strong emphasis on providing a more home-like environment. Residents are supported in their choices and preferences for everything from what foods they like to eat to what they like to do for enjoyment. Technology has expanded those choices. In group settings, large screen TVs can make it easier to see and enjoy a popular movie, program or special event with friends and family. Using Wii video games

of golf, tennis, bowling or baseball, residents and therapy patients can experience physical exercise and improve stamina, balance and strength while sharpening cognitive skills. For the resident who wants an individual activity in their room, portable DVD or CD players can provide the latest movie or book on tape. Wireless systems allow use of personal laptops or in-house computers to stay connected to the internet, pay your bills on-line or keep up with friends and family through email. A younger baby boomer population who comes to long term care for short term rehabilitation has been a strong driver in bringing technology to nursing homes.

Entertainment is not the only area where residents benefit from technology. Clinical modalities for a variety of medical needs are also expanding. New technologies in wound care include pressure relieving devices to prevent new wound development, new topical drug treatments and therapies such as negative pressure and ultrasound treatments for rapid wound healing. Some diagnostic studies and x-rays can also now be done in-house with portable technologies, avoiding a trip to the hospital. Improvement in safety is another benefit of technology. New lift devices not only assure safe transfer of residents but protect staff members from back and shoulder injuries as well. In a growing area of bariatric care, this is an important area of concern.

The newest technology entering long term care is the electronic medical record (EMR). Documenting care electronically is both exciting and challenging. The excitement comes from being able to organize and retrieve data into tools that enhance care, communication and quality improvement. Care documented at the time it is given by nurses, nursing assistants and other members of the interdisciplinary team improves accuracy, so most electronic systems have a variety of devices available to accomplish this task, including hand-held devices, portable computers on carts, head sets the caregiver speaks into, and kiosks outside resident rooms. Point of care documentation was never easier. Nurses in long term care generally have large patient groups. A data bank of resident information now allows the nurse to generate a variety of reports and schedules which assist in prioritizing care for the day. Computer systems which generate shift reports and have clear, typed progress notes available to read with just a few clicks of the keyboard improve communication among team members and from shift-to-shift when covering many patients. Quality improvement is enhanced when nurses can run reports to assist in researching data on outcomes, saving hours of time sifting through data in multiple charts.

Another new area of technology is in medication administration systems. Late day admissions have always been a challenge in nursing homes as most facilities do not have on-site pharmacy services. Technology has solved that problem by developing systems which store and dispense medications no matter what time the patient arrives. Bar coding

and patient alerts contribute to patient safety during regular med passes. Some of these new systems also save time by eliminating the dreaded end-of-the-month turnover of pharmacy records.

Although this new technology has brought with it many positive changes, the challenges of implementing and maintaining these systems are far from small. Initially it is important to know what experience your staff has had with computers and keyboards. In order to complete documentation timely, a high level of comfort with basic skills such as typing, drop down menus and using a mouse is important. These skills may seem easy to the computer savvy staff member but quite challenging to those who may never have used a computer before. Tutorial CDs and training classes can help with these tasks, and ongoing management and tech support daily assists the staff in overcoming this challenge.

In addition to utilizing new equipment, work flow processes may have to be analyzed and adapted to the new computer system. Who will enter repetitive data like vital signs and weights? Which shift will run necessary data reports? Who will be responsible for tracking this large amount of data and assuring that staff are using the system appropriately and completing required assessments? These are some of the questions that may need to be answered.

Technology has brought about many changes in long term care with the promise of more to come. Culture change will continue to refocus emphasis on how the patient desires care to be provided. A younger and more diverse short term rehab population will only naturally bring with it increased demand for the technologies that support the lifestyles of both today and the future. As long term care nurses, there has never been a more exciting time of growth and challenge as we incorporate all the many benefits of information technology into our practice and move forward.

Technology in the Ambulatory Care Setting

Holly B. Crisco, LPN

Holly B. Crisco, LPN earned her degree from Del Tech Community College in Dover, Delaware. She has been the nurse manager at Dover Family Physicians since 1987 treating and serving her patients from the newborn to the elderly. She can be reached at Dover Family Physicians at 302-734-2500.



Holly Crisco

The 21st Century offers many advances and challenges with the technologies in the ambulatory care setting. When our office first started talking about going to EMR (electronic medical records), I thought to myself how will I do my job, I hardly even know how to turn the computer on let alone use it. Our saying in the office was "EMR will fix everything". However, little did we know, it would create a whole new set of problems. Change is always difficult, but does present its rewards.

In the beginning there was a lot of comparing different computer systems. The one thing that we wanted for our office was not to change our doctors' way of practicing medicine. We wanted to enable EMR to work around us. After choosing a system, we had to learn how to set it up to work for our office. You don't get to just push a few buttons and everything is there. It is kind of like building a house: you start with the plans, then foundation, framing, plumbing/

electric, drywall, down to the final touches. When you finally move in, there are still always things to adjust and maintain. One of our sayings was "garbage in, garbage out" so the initial set up was very important. Then followed: inputting, inputting, and even more inputting. We had to supply the machine with all the patient information and history.

There are a lot of benefits and tribulations to using EMR. Before there was EMR, everyone would be running around looking for a particular chart, lab, or x-ray. Now all of that information is at your fingertips, that is, until there is a failure in technology and the system shuts down. Instead of telling someone "we can't find it", we now say "sorry our system is down". The documentation is better and much more legible.

Some of the tribulations of the EMR system are that it is really easy to make one wrong click of the mouse and make a mistake. For example, when choosing prescriptions, the "click" for once daily and four times/day are directly beside each other and are often clicked wrong. This could understandably cause problems. Also, some of the simplest things become very complicated. Who ever really thought about when you write a Rx for Doxycycline, is the second word Hyclate or Monohydrate? Depending on which one is picked, the cost could be \$4.00 or \$100.00. That's quite a difference. The doctor used to be able to write a Rx for simply "home glucose test strips", now it has to be specific to which machine, manufacturer and type of supplies (i.e. Accu-chek Aviva, Advantage, or Comfort Curve). Another problem that has arisen is that ordering any test can be a little tricky if you don't have the correct CPT code.

Some of the benefits of EMR include that information in the medical record is now traceable: who did what and when. This is a great feature that

was not available in the past. The flow charts of the patients' histories are available at a quick glance: cholesterol levels; vital signs; glucose levels; growth charts; etc are all on one page.

One of the things the 21st century has brought us is speed and instant gratification. This is also true with EMR. The actions taken in a patient's EMR chart are in real time. The minute that something is selected (ordered), it is documented with date, time and the person's initials. When labs or x-rays are completed, they come into the office via the DHIN (Delaware Health Information Network) and get linked to the correct patient's chart to be reviewed by the doctor who ordered them. When another office calls needing information, the chart can be pulled up, reviewed, and any documentation can be sent over with just a few clicks. Another nice feature is that important reminders and/or warnings can be made to "pop-up" whenever the chart is opened. Education for the patient is also only a few clicks away instead of finding it in a book and making a copy. When a medication is ordered, it can be sent over to the pharmacy via e-prescribing, so when the patient leaves the office they can stop by the pharmacy on the way home, pick up their medication and start it right away and this leads to a quicker recovery for the patient.

The Ambulatory Care Setting has changed greatly in the past 20 years, largely in part from the advancement of technology. There are lots of rewards and challenges that come with an EMR system. Our office has definitely seen a big change in the way we operate, however our doctors still get to practice medicine the same "old-fashioned" way, but with modern state-of-the-art tools. Hopefully with all of this advancement it will lead to better, more efficient health care for all.

Simulation in Nursing Education: State-of-the-Art Technology Creating State-of-the-Art Nurses

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Judith W. Herrman, PhD, RN received her BSN, MS and PhD from the University of Delaware. Judy has been a nurse educator at the University of Delaware since 1993. Her interests include creative teaching strategies, simulation education, and generational issues impacting learning. Research interests include adolescent brain development, sexual decision making, and impacting teen health and risk behaviors. Judy is currently the Assistant Director for the School of Nursing, responsible for coordination of the undergraduate nursing program and administrative functions. She can be reached at jherrman@udel.edu.



Judith Herrman

Few innovations in nursing education have created such high levels of enthusiasm, financial investment, and curricular revision as the emergence of simulation mannequins and the associated teaching strategies. The National League for Nursing has charged nursing educators with facilitating students' critical thinking, self-reflection, and to prepare graduates for practice in a complex and dynamic healthcare environment (Decker, Sportsman, Puetz, & Billings, 2008). New graduates, being tech savvy and multi-taskers need learning environments to accomplish these goals. This column will discuss the current and future use of simulation and technological innovation that will allow nursing to meet this challenge.

The learning of psychomotor skills in the traditional nursing lab are familiar to all nurses. Giving injections to oranges, making endless unoccupied and occupied beds, practicing interventions, and taking many blood pressures have long been used to reinforce the basic skills of nursing. Importantly, as nursing and healthcare advance in complexity and use of technology, nursing has responded by enhancing

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for the Delaware Diamond Delivery grant working with substance abusing pregnant women. She has been a nursing educator for over 18 years at Samuel Merritt College, Oakland, CA and currently at the University of DE where she is an instructor and the Coordinator of the maternal-Child Simulation Lab. She teaches maternity, women's health, and high-risk OB. In addition, she has been responsible for developing and integrating simulation into the pediatrics and maternity didactic courses allowing for students to experience 16 scenarios in the one semester. She has also served as a consultant for Gaumard Scientific, Inc and helped develop tools for the instructor and student Noelle manuals to allow for easier use of scenarios by those utilizing them. She recently presented 'To Sim or Not To Sim: That is the Question' at the AACN conference in San Antonio. Lisa can best be reached by email at lmsnyder@udel.edu.



Lisa McBeth-Snyder

teaching methods. The use of higher technology simulation in nursing education is only about ten years old. Because of this, little research exists to validate the effectiveness of this strategy, how simulation impacts student confidence and competence, and how skills learned in the lab transfer to clinical nursing practice. Simulation in education traces its history to the airline industry and wartime training of pilots. Air traffic controllers, pilots, and cockpit crews practiced in simulators to provide realistic training about plane equipment, day-to-day operations, and dealing with emergencies and unanticipated events. Essentially,

these origins have direct application to the value of simulation teaching methods in nursing and medical education.

In the 1950's mannequins in nursing education were limited to teaching about moving patients, positioning, and some procedures. In the 1960's, mannequins replicated heart, lung, and bowel sounds to add a realistic dimension to student learning. It was not until the advent of the 21st century that current and evolving human patient simulators (HPS) were marketed and allowed for high levels of nursing assessment, critical thinking, and nursing intervention. These mannequins, known as high fidelity simulators, have life-like characteristics and can demonstrate vital signs, symptoms, and status changes to replicate real people. As HPS's become more sophisticated the learning experiences become increasingly realistic in depicting the challenges of providing nursing care (Feingold et al., 2004).

Current high fidelity mannequins come in either sex, in varying sizes that correlate with age, and are run by highly sophisticated computer systems which provide authentic and programmable responses to interventions. They depict changes in the health status of the simulated patient, including vital sign changes; secretions from sweat glands, tear ducts, and other orifices; skin color changes including pallor and cyanosis; breath, heart, and bowel sounds; seizure activity, pupillary changes; skin texture variations; coughing; and other bodily signs to replicate real life. These physical changes can be used to emulate real client changes. For example, in one mannequin the tongue is designed to swell in order to simulate an airway obstruction associated with an anaphylactic reaction. Students can provide oxygen, give medications, start IV's, and the mannequins can respond to correct oxygenation, correct dosages and fluid administration. Some mannequins have voice modulators or microphones in their heads, so instructors running the lab can either initiate certain programmed voices or speak as the patient themselves. This allows for patient verbalizations which create real conversations that can help nurses gain experience in communicating with their patients and to better provide nursing care. A very popular birthing simulator goes through the entire labor and delivery process, producing a 6 pound newborn in varying periods of

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time and realistically depicts the birthing process. Students are able to actively support the laboring woman, deliver the infant, and provide care in low and high risk situations, including hemorrhaging, shoulder dystocia, preeclampsia to name a few. As J. Noyes, RN, (University of Delaware class of 2008) states "When comparing the actual delivery to those I practiced in lab on the mannequin, I was surprised how everything I had learned came together to make sense... but I was also able to respond appropriately because of what I remembered learning and practicing in lab."

Other simulation laboratories replicate the operating room, allowing students to learn to "scrub," serve in scrub and circulating nurse roles, and assist during perioperative procedures. Students are able to practice their role in a safe and controlled situation, offering a greater chance for preparation for real-life clinical experiences.

In addition to the mannequin there are additional ways to enhance simulation. One of them is moulage which is used by laboratory instructors to add realism to the nursing student experience. Yellow food coloring to create urine of various concentration levels, dish detergent representing viscous respiratory mucus, nail polish remover that smells like ketotic breath, and spraying the mannequin with a plant sprayer simulating diaphoresis are all creative ways to bring reality into teaching and remind students of key assessments. Lab instructors have developed a vast number of moulage "tricks" in order to add to the learning experience.

Another nice addition is personalizing the mannequins. Many simulation labs have found that naming a mannequin, dressing mannequins as patients including name bands and allergy bracelets, and providing a health history assist students in considering and treating mannequins like real clients. Students must communicate therapeutically with clients, observe client safety principles, and respect the client as if it were a real person. Lab instructors do not tolerate referring to mannequins as "dummies."

In addition many schools of nursing have endeavored to create hospital-like appearances in the labs. Nursing stations, medication rooms, real-life bedsides, intensive care units, labor and delivery rooms, and operating rooms are created to portray the workplace. Some schools create apartment-like settings to simulate the home or community environment in order to teach students about the home visit or psychosocial nursing skills (Feingold et al., 2004). In some settings students are required to wear clinical nursing uniforms in order to reinforce the importance of the simulation laboratory as a clinical site on par with other clinical agencies.

Perhaps key to the success of the simulation are the scenarios developed to both guide the students through a patient situation and to allow for computer manipulation of the patient with appropriate signs and symptoms. Student participation in a scenario allows for a risk-free environment to practice what they have learned and grow from mistakes they may make without impacting patients. Scenarios may be instructor-developed or purchased and provide students with objectives, guidelines for student preparation, faculty guidance on how to conduct the scenario, computer programming to simulate patient changes, and critical thinking activities to encourage thoughtful exploration of patient issues. Scenarios include signs and symptoms, status changes, and data which are programmed into the software of the HPS. Scenarios create real life states that students move through that can take them through different aspects of patient care. For example, they could admit a child into the ER, assess him for a possible appendicitis, detect and manage a ruptured appendix, provide perioperative care, deal with complications including sepsis, and discharge the client. During this process they are assessing him, providing teaching and comfort to the child and his family, hanging IV's, giving medications, and implementing discharge teaching.

As simulation matures so too do the techniques associated with student learning. Key to the process is the practice of debriefing. During this guided reflection the faculty ask students about their simulation performance and provide real-time feedback. Students are asked to consider what actions they may have done differently, the potential impacts of alternative actions, and about their feelings during the simulation exercise. Some authors support written and oral revisiting of performance. To that end, schools of nursing invest in sophisticated camera equipment allowing for videotaping of scenarios for later viewing. Students critique their own performance and continue to learn following scenario completion. Ongoing exploration allows for "what if" and "do over" situations not available in traditional nursing learning or at the bedside of a real patient.

One great value of simulation education is exposure to situations and nursing care not often encountered during a student's clinical practice. Simulation activities provide the ability for students to serve an active role in situations not often encountered in the clinical area. Either due to lack of opportunity in the clinical area or emergent patient needs that preclude student involvement, nursing students may not always have the chance to actively participate in a patient situation. With simulator scenarios, students participate in resuscitation efforts, neonatal delivery, fetal demise, team management of health conditions, and dealing with a variety of emergencies.

Another valuable learning opportunity provided by scenarios is group interaction, learning, and prioritizing. During scenarios students are assigned active roles such as primary nurse, medication nurse, family members, and other healthcare professionals. They are given preparatory information and held accountable for key knowledge prior to the scenario. During the scenario students perform psychomotor skills and are asked to address key clinical decision-making problems. Scenarios provide unique opportunities for safe clinical practice, lessons in delegation, and performing in the interdisciplinary team.

One of the great assets of simulation education is related to the potential application across all levels of nursing education and experience. Novice nursing students may learn to take vital signs, provide basic care, and practice early decision-making skills. Physical assessment and medication administration skills may be fostered and maternity, pediatric, medical, surgical, community, and psychiatric nursing skills may be enhanced using simulation strategies. Senior students may be confronted with scenarios related to leadership, delegation, and the management of multiple clients. Nurse practitioner students practice advanced physical assessment skills and nurse midwives learn about the birthing process and how to deal with emergencies in a safe simulated environment (Dow, 2008).

In addition to schools of nursing, simulations are effective in assessing competency in practicing nurses and in educating experienced nurses in new procedures, management protocols, and skills. As such, many clinical agencies have created simulation laboratories and have invested in simulation to provide education and assessment in "Code Blue" procedures, clinical pathways, and mandatory education topics (Decker et al, 2008). To enhance patient safety and reinforce practice standards, many labor and delivery units are now putting all staff through mock shoulder dystocia drills with a multidisciplinary team.

Perhaps the greatest value of simulation scenarios and mannequin use may be associated with the development of "cause and effect" situations and subsequent clinical judgment skills. Student gain critical skills in assessing a patient, providing a nursing intervention or administering a medication, reassessing patient responses, and evaluating the effectiveness of that intervention. Ensuring sound basic nursing care, patient respect, safety, and using therapeutic communication techniques may all be reinforced during scenarios. Students review the client chart, evaluate physician orders, provide nursing care, and carry out documentation just like the clinical area. Many simulation education programs are based on peer teaching, wherein students work together to learn skills, monitor each others' progress, and more senior students assist students to learn the basic skills. This provides a unique opportunity to learn the cooperation, team work, and collaboration inherent of nursing practice.

There are disadvantages to simulation laboratory teaching methods. Obviously, the costs associated may often be prohibitive. State of the art simulation mannequins may cost many thousands of dollars, in addition to the equipment, supplies, warranties, and upkeep which compound the initial purchase. Space issues are often daunting for schools of nursing. Faculty may be reluctant to learn new strategies and adopt new methods of nursing education when nursing curricula are perceived as "full" and having little room for innovation. Finally, nursing faculty grapple with the artificial nature of simulation and the role simulation can play in nursing education.

Although sometimes faculty assume students who are more technologically adept will embrace simulation teaching strategies, some students may not excel in this kind of a setting. The simulation philosophy demands active student participation and thorough preparation. For students who are shy and not as assertive, they may always be in the background or easily drowned out by more aggressive learners. As research continues to evaluate the role of simulation in nursing education, studies will explore how simulation may be adapted to individual learner needs, the impact of simulation on clinical confidence and competence, the role of scenarios in developing clinical decision making skills, and the transferability of skills learned in the lab to clinical nursing practice.

It is important to note that simulation does not replace quality teaching or clinical exposure to clients. Nursing faculty must work hard to ensure that simulation experiences are objective based and have true value for students as they gain in proficiency. As noted by Starkweather and Kardong-Edgren (2008), "It is not solely the use of simulation, but the techniques employed with simulation that can improve the teaching experience for faculty and students" (p. 1). In addition, most schools of nursing have remained committed to the time spent in clinical practice in actual agencies involved in actual patient care. Some states have developed percentage formulas that allow simulation to replace some clinical hours, attractive in some areas due to limited clinical sites and faculty. As simulation gains more importance and replaces some clinical hours in many states, this is an important aspect in helping students buy into the reality of simulation.

The technologies involved in simulation learning are evolving daily. Creating virtual clinical experiences, patient encounters with avatars in "Second Life," and enhancing student learning through replications of the electronic medical record are all new avenues being explored. In addition the licensing board is looking at adding a simulation component to the nursing exam. Importantly, nursing faculty and healthcare professionals endeavor to incorporate simulation methods with other teaching learning strategies to encourage students to "think like a nurse" and to enhance the quality and safety of nursing care.

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Technology's Impact on Quality of Care and Performance Improvement

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She is currently a project coordinator for Quality Insights of DE, Medicare's quality improvement contractor for Delaware. As a project coordinator, she creates partnerships with various providers to accelerate improvement in the quality of care for Medicare beneficiaries using analysis of provider quality measures and evidence-based strategies and tools. She continues to serve on the board of directors of the DE Pain Initiative, Inc and is immediate past president. Margaretta can be reached by email at mdorey@wvmi.org or at her office at (302) 478-3600 extension 119.



Margaretta Dorey

The Centers for Medicare and Medicaid has charged Quality Improvement Organizations (QIOs) with improving the quality and efficiency of care for Medicare beneficiaries and to be a catalyst to motivate healthcare providers to improve quality of care. To meet this goal, QIOs access various CMS provider databases to produce web-based reports to utilize for quality improvement initiatives by healthcare setting.

For hospitals, Data for Annual Payment Update (RHQDAPU) not only provides quality of care information, but provides a financial incentive for hospitals to report the quality of their services. For FY 2010, which begins October 2009, there will be a total of 42 quality measures that represent specific evidence-based processes of care. In the home health setting, the Outcome and Assessment Information Set (OASIS) is a set of elements for patient assessment and measuring outcomes for the outcome-based quality improvement. The Minimum Data Set (MDS) is the clinical assessment process required upon admission in nursing homes and periodically thereafter. Information from the MDS comprises the Quality Indicator/Quality Measures reports for nursing homes. Both the OASIS and MDS are also used in the care planning process. (AHRQ 2009) As these are national databases,

organizations can not only compare their quality of care to prior performance, but also to state and national performance encouraging selection of poorer performance areas for a quality improvement initiative.

The QIOs contract with CMS to work with specific providers using evidence-based best practices and strategies to improve quality including the use of technology to improve outcomes. The QIO quality improvement projects, typically managed by RN project managers, facilitate further analysis of the data and processes contributing to the data set. The result of these interventions might be that the patient may receive the right antibiotic at the right time, or have less pain or pressure ulcers, or avoid going to the emergency room for cardiac care.

The RN project managers are able to retrieve and drill down performance data to the patient level. We can identify providers who are outliers in quality measure and indicators at both high and low ends of the spectrum and compare them with state and national levels. For instance, if a nursing home has a high pressure ulcer rate, we might also review performance in other areas that potentially influence those rates, such as prevalence rates for physical restraints, pain, or weight loss.

In the CMS 8th Scope of Work from 2005-2008, CMS and the QIOs promoted several health information technology (HIT) processes to address these issues: the use of telehealth for reducing acute care hospitalizations in the home care patient, computerized physician order entry (CPOE) or medication bar coding to transform hospital care, and HIT adoption in adult primary care practices. One home health agency in Delaware reduced their rehospitalization rate for heart failure patients to 50% of the CMS risk-adjusted predicted rate for their case mix by using telehealth monitors that notify the telehealth nurse of changes in heart failure indicators.

QIOs also assisted nursing homes in setting performance targets and tracking their progress on selected measures using a web-based tool called STAR (Setting Targets-Achieving Results). (NHQI_Star 2009) By utilizing this technology, nursing homes are able to set targets in one of several performance areas: physical restraints, pressure ulcers, depression, and pain. Nursing homes are able to view their quarterly performance and select a method to improve: state average, national average, percentile ranking, percent improvement or Achievable Benchmarks of Care (ABC) method. (www.NHQI_STAR) Setting targets has shown to correlate with improvement over time; approximately 44% of nursing homes that set targets in 2005 improved almost twice as much as those that did not set targets. (Adler 2006)

According to the Commonwealth Fund, (2008) investing in our weak primary care system through information technology will make it easier to gather

the information necessary to track performance and monitor performance improvement efforts. However, Dr. Carolyn Clancy, Director of the Agency for Healthcare Research and Quality, once said that simply automating our current system only allows us to do the wrong thing faster. Although technology facilitates efficiencies, technology alone is not sufficient to improve performance and quality of care. (Adler 2009)

In the CMS 9th Scope of Work that began in August of 2009, QIOs are working with physician practices that have already adopted EMR to increase utilization of this technology through analysis of a readiness assessment. Organizations that have information systems often do not take full advantage of their capabilities. (AHRQ Innovation 2008). This assessment is used by the QIO to develop recommendations for changes and strategies to improve clinical workflow and clinical outcomes. Especially important in the chronic care patient, physician office nurses will have a pivotal role in disease prevention and patient flow where the EMR becomes a real time continuity of care record.

Physician practices will submit monthly data to the QIO, which will build reports to identify patients who should have documentation that they have received specific care. Office nurses can use electronic alerts for follow-up phone calls, visits, or mailings for care such as immunizations, mammography, and colorectal screening. Many studies show that alerts and reminders improve adherence. (Bates 2002)

The critical challenge will be to integrate patient assessments and clinical pathways across settings to improve outcomes using real time information technology. Currently, we do not have the interoperable information technology to document performance and monitor our improvement efforts. But envision the patient with congestive heart failure managed by his primary care physician through clinical pathways integrated into the EMR, with alerts seen by his physician that help coordinate his care through admission to the hospital bypassing the ER, and discharged to home care with telehealth monitoring.

CMS is also currently funding the improvement of care across settings in 14 U.S. communities led by the QIO community using the CARE (Continuity Assessment Record & Evaluation) instrument. The internet-based patient assessment uses state-of-the-art interoperable technology to document changes in the level of care needs of patients through the measurement of the health and functional status of the patient.

We have come a long way since our paper and pencil days to using spreadsheets, databases, and software tools to collect and analyze quality of care through quality measures. Technology is a powerful tool to drive quality improvement. Access to data and feedback motivates providers by appealing to their competitive nature and quest for improving quality of care for their patients. But to improve quality of care, we must embed the advances in health information technology into the culture of each health care organization and into the hands of the clinicians. The future is quality care that is real time, evidence-based, and measurable. Meaningful health information systems will help get us there.

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Delaware Health Information Network Better Communication for Better Health Care

Prue Albright, RN, MSN

Prue Albright earned her BSN from the University of Delaware and an MSN from Widener University. She has enhanced her education with experiences from Mid Atlantic Public Health Leadership Institute and the Duke Leadership program. Prue has over 30 yrs experience as an RN, dedicating the majority of her career to various positions with the DE Division of Public Health. She's also taught at the secondary and college level. She is currently serving as the Clinical Liaison for the Delaware Health Information Network (DHIN) where she oversees all outreach, training and communications activities with the physician community in Delaware as it relates to DHIN enrollment and use. She also facilitates the DHIN Clinical Advisory Group, comprised of DHIN physician and administrative users. Prue can be reached by email at Prue.Albright@dhin.org.

No photo
available

Prue Albright

Have you ever needed a patient's test result and could not find it? Have you ever been asked to pick up and carry reports from provider to provider? Have you or a loved one ever been in the emergency room and struggled to recall details about prior tests and medications? If you can relate to any of these scenarios, Delaware's health information exchange, the Delaware Health Information Network (DHIN), can help you professionally and personally.

These are exciting and challenging times in the healthcare industry. President Obama's economic stimulus package includes funding for health information technology as a means to create healthcare efficiencies, decrease costs and create jobs. This package provides incentives to get more electronic medical records in physician practices, but if all of these individual systems cannot communicate then the full benefit of health information technology will not be achieved. DHIN provides this critical connectivity between data senders (laboratories, radiology facilities and hospitals) and data receivers (healthcare practices).

On May 1, 2007 DHIN went live, becoming the first operational statewide health information exchange in the nation. Delaware can attest to the efficiencies derived from health information technology as one of few states on the cutting edge of implementation through the efforts of DHIN. Delaware leads the nation in creating an interoperable healthcare system where a patient's data follows them from provider to provider.

DHIN connects hospitals, healthcare providers and laboratories in real-time for the secure and reliable exchange of health information—creating better communication for better healthcare. DHIN provides secure delivery of laboratory and pathology results, radiology reports and admission face sheets from the following sources:

- BayHealth Medical Center
- Beebe Medical Center
- Christiana Care Health System
- Doctors Pathology Service
- LabCorp
- Quest Diagnostics

(Coming soon... St Francis and other data senders)

These participants provide over 85% of laboratory tests and hospital admissions performed in the state. There is one standard format for all reports and results regardless of where the test was performed, which means that providers don't have to search for information on the report. Also, automatic alerts for out of range results allow providers to respond quickly and better prioritize their work and the patient care they provide.

Practices have access to their patients' clinical results via an electronic inbox or direct interface to their electronic health record system. Practices using DHIN have reported faster receipt of critical reports that lead to improved patient care and increased productivity among office staff due to streamlined management of their results and reports through

DHIN. With the rollout of a new version of DHIN adoption and usage are expected to increase to 50% by the end of June. Currently over 30% of practicing physicians in Delaware are enrolled, accounting for over 2,600 users of the system in practices statewide

DHIN is currently launching an enhanced version, free to enrolled providers, that includes a new patient record search capability that makes clinical history available through DHIN on a need to know basis. Patient search provides doctors the ability to retrieve information on a patient in seconds. No more calling other providers or the lab; no more waiting for a fax to arrive. This means better health care for patients, greater efficiencies for providers and potential cost and life savings to the patient due to avoidance of duplicative treatments and therapies.

Coming soon, DHIN will also make a 12-month medication history available to providers, including those in the emergency room. Hospital emergency departments in Delaware will also have access to patient health information through DHIN. Patients who enter the emergency room and their families are typically under stress and often are unable to accurately recall details of their health history. Emergency physicians will now have the ability to review medications and results from recent tests that can help them make critical and life-saving decisions much faster and more effectively than ever before—leading to better patient outcomes and potential cost savings.

DHIN also provides electronic reporting of chief complaint data from the hospital emergency rooms to the Delaware Division of Public Health (DPH) and is in test stages for the implementation of lab reporting for public health reportable diseases. This will enhance the state's bio-surveillance system and lead to better outbreak investigation and disease control efforts. There are several other DHIN-DPH collaborations on the horizon.

DHIN is working now with Long Term Care Facilities and Home Health Care Agencies to assess how DHIN can support patient care by identifying potential processes that would enable DHIN to facilitate communication of critical patient data as patients move across the health care continuum. We anticipate being able to create these links next year.

From the consumer perspective DHIN provides unique features. DHIN has a strong Consumer Advisory Committee that has developed privacy policies. They are committed to a system that allows the network to be available to improve care and reduce costs while assuring patient privacy. To that end, consumers will be able to request from DHIN, a report of who has accessed your record. Also, if a consumer really does not want their information available to providers using the query function, patients can choose to not to participate. Once

a person requests this, their identity is verified and then their information is not available to other providers via query. Patients may choose to participate again at any time. Future consumer enhancements are considered that may allow patient access to their information, and provider reminder for screenings and appointments.

This is an exciting project in a time of national change. As providers look toward securing stimulus dollars for health information technology adoptions, DHIN provides the necessary connectivity to sources of information that enable meaningful use. DHIN continues to lead the nation on the cutting edge of health information technology implementation.

Again, DHIN is available at no cost for practices—all that is needed is Windows-based computer with high speed Internet! DHIN is a public/private partnership funded by federal, state and private sources.

For more information about connecting your practice to DHIN or to learn more, please contact Prue Albright at 302-678-0220 or prue.albright@dhin.org. If you are interested in working with DHIN on any of our various committees please call to discuss. We need your valuable input.

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Engaging Patients through Interactive Care Technology

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Katherine Pereira-Ogan

In hospital rooms in Delaware and across the country, patients are experiencing an interactive patient care (IPC) system that informs, alerts, and empowers the patient at the bedside. This leading edge technology, developed by GetWellNetwork, turns the patient's in-room television into an interactive resource that allows patients to become more active participants in their healthcare process. These tools provide customized education, medication information, patient safety, pain management,

health and wellness information, relaxation and entertainment, and internet access. In addition, patients can provide feedback about their hospital experience and can request a range of non-clinical services directly through the system, freeing nurses to focus on clinical duties. The system is a total patient experience designed to benefit patients and family members by increasing nursing efficiency, patient satisfaction, and enhancing patient education.

Recognizing that communication between patient and caregiver is an integral part of the healthcare process, the IPC system has become a valuable tool for patients and offers several methods to enhance this communication. Patients are able to submit compliments, suggestions and safety concerns, providing staff real-time feedback. While not taking the place of a translator, the system also provides links to online translation services for the ease of communicating non-clinical and social conversations. During periods of system non-activity, a slide show presents the patient with hospital and unit specific information such as visiting hours, unit activities, and safety messages.

Using a patient and family centered approach to care, patients are able to participate in diversional activities at the bedside. In addition to television, patients and their visitors have the opportunity to connect to the outside world, research health information, and communicate through internet and e-mail. Over 60 video games are available and patients can select from a list of on-demand movies which are updated on a quarterly basis. Relaxation and restorative therapy is available through scenic imagery and natural ambient sounds, creating a relaxing, therapeutic environment. Patients can also use the system to create their own website, known as Care Pages, to provide updates to their friends and family. For patients who are unable to verbally communicate, a communication tablet text box is available which allows patients to enter free text using a keyboard.

The system also provides a number of features enhancing patient education. Available at the touch of the screen, patients can access health libraries and health education resources. In addition, patients can research post-discharge care facility options from a database of 200,000+ post hospital services located throughout the country. This allows patients to locate services close to their home and specific to their care needs. It also empowers the patient to be involved in their health care decisions by being fully informed of the services available to them.

The system also allows hospitals to focus on specific patient satisfaction goals by providing targeted survey questions. Following a HCAHPS-style questionnaire, the system asks the patient to complete a patient satisfaction survey to assess

their overall experience. Should the patient answer "sometimes" or "never", the nurse manager or designee is automatically notified so that immediate service recovery can be provided. In addition, there is a unit specific question of the day that is provided to the patient that targets that unit's specific goals. By utilizing this system approach to service recovery, the healthcare organization is able to achieve new levels of service, patient satisfaction, quality outcomes and compliance, and nursing efficiency. The return on investment is both clinical and financial.

While the system allows patients to search for information of relevance to their condition or select movie options of their choice, the system goes far beyond passive, on-demand resources. A unique advantage is the realization of a fully integrated care approach that uses the system's architecture to deliver a personalized care experience to each patient. This is accomplished through a variety of coordinated, automated workflows, called "patient pathways" that display messages on the patient's monitor inviting the patient to learn more about his/her care, condition, safety, and other important aspects of the hospital stay. One such pathway is a "flu season" alert, reminding patients to get their flu vaccine before discharge.

In an effort to further improve patient safety, accurate documentation and nursing efficiency, a system interface was developed between the IPC system and the hospital clinical documentation system, Cerner PowerChart. Nurses are able to prescribe specific education videos to individual patients at a designated date and time through PowerChart. The education order is sent to the IPC system, displaying an alert on the patient's television monitor notifying him/her of the recommended video. Patient response to the prescribed education is captured and sent back to PowerChart, allowing nurses to monitor the status of videos. This includes information on whether the video was completed or partially completed, date and time the video was completed, who watched the video (patient, family member, or other), and any other videos watched that were not prescribed.

Additionally, some videos are automatically prescribed based on specific patient information entered into PowerChart. For instance, when nurses indicate in PowerChart upon admission that a patient is a smoker, the system automatically triggers a Smoking Cessation Pathway in the IPC system and sends an alert to the patient's television screen recommending a video on smoking cessation.

By automating the patient education process and effectively tracking education compliance, the IPC system relieves nurses from administrative tasks as well as provides a more accurate means of documentation. In response to HCAHPS-driven goals, a new initiative is underway that will offer personalized medication information and education, linking a patient's personalized medication list in PowerChart to a medication database and video education in the IPC system.

Down the road, the system will continue to grow and expand with nursing efficiency and patient satisfaction in mind. New features will offer the ability to communicate with physicians, display test results at the bedside, and assist with pain management and discharge instructions. Also on the horizon is an on-screen white board, dietary requests, pharmacy services, interactive games, satellite radio, and gift shop and e-commerce purchases.

Nursing Led EMR Implementation

Angeline C. Dewey, BSN, RN, CCRN

Angeline C. Dewey earned her BSN from the University of Delaware and is working on her MSN from there as well. She is certified in adult critical care nursing from the American Association of Critical-Care Nurses. She has been a critical care nurse for almost 15 years. She currently holds the position of Clinical Practice Leader for the ICU at Bayhealth Medical Center, Kent Campus where she collaborates with the nursing staff to improve patient outcomes. She is the chair of the Electronic Documentation Committee at her organization as well as a member of the Ethics Committee, Performance Improvement Council, and Critical Care Committee. She is also a member of AACN and the local Diamond State Chapter AACN where she holds the office of treasurer. Angeline can be reached by email: angeline_dewey@bayhealth.org or in her office (302)744-7071.



Angeline Dewey

Healthcare today is demanding increased technology to ease the burden of more acutely ill patients in conjunction with streamlining data collection. There is also great pressure from regulatory bodies including the federal government to transition to electronic medical records (EMR).¹ The time is now and the leaders to best guide hospitals through this transition is the core bedside nursing staff. EMR introduction will change bedside nursing practice, documentation and education.

One of the most important tools in healthcare is the patient record.² Within hospitals nurses are the chief data collectors and users of the patient record. EMR offers opportunities to enhance, consolidate, and streamline patient records. Professional nurses are prime to lead tremendous organizational changes such as EMR implementation as evidenced by the Standards of Professional Performance. The qualities inherent to the professional nurse including collegiality, collaboration, resource utilization and enhancing the quality of practice and effectiveness of nursing practice.⁴ The success of nurse driven protocols is well documented in the literature.¹ Through empowerment nurses have made incredible strides through implementing change and reaping the rewards. And who better to revolutionize charting as it has been known for over a hundred years than the nurses who comprise the largest portion of the end-users within hospitals.³

EMR implementation led by nursing is a win-win situation. Success is almost guaranteed as the end-users are establishing the standards. Fellow colleagues are also more likely to accept the transition when led by their peers. There are several key roles that nurses play in accomplishing EMR implementation that I have identified through my nursing practice.

Devise a multidisciplinary team devised of representatives from all end-users. Nurses are the conduit through which almost all patient care is arranged. The nurse understands the workflow for each member from the multidisciplinary team and can gather key members of the team readily to carry forth such a change in practice. A multidisciplinary team, not only involved in patient care but inclusion of the discipline of Information Technology (IT) within the organization will allow for each area to draw upon their expertise and contribute to the meshed final project crafted by an EMR committee. By engaging end-users, a good fit is almost ensured as the stakeholders make practical decisions for success.

Encourage a nurse from the team to step forward and chair the committee. Nurses represent the largest portion of end-users within hospital-based organizations. Change is commonplace in the nursing world, and a key characteristic of the professional nurse is change agent. Nurses have effective communication skills which will be key in leading a multidisciplinary team through revolutionary change. Nurses are also familiar with leading diverse groups within their daily practice. A nurse led EMR committee will ensure a

partnership with all disciplines involved in the EMR implementation.

Build the policies up front. In order to maintain consistent processes, policies reflecting current practice must be written to ensure EMR implementation will not alter the standards already established. Nurses can develop policies if necessary which will mirror current workflow and redesign processes if necessary. Through collaboration with IT, additional policies on downtime and catastrophic failure can be developed to meet the needs of end-users as well as support systems and provide a clear understanding of necessary action should these breakdowns occur.

Plan for education and training. Nurses in the role of Clinical Educators (CE) lead staff development departments within many hospitals and therefore are prime to coordinate the massive amount of training required for all end-users. The collaboration between Nursing Informatics Analysts and CEs will strengthen the ongoing teamwork at the bedside along with the EMR committee. The CEs are very influential in fostering positive attitudes for the EMR. They are able to recognize the variances in baseline computer knowledge enabling them to provide additional education as necessary. Mandating EMR education reflects the institution's support and value of the project along with assuring the necessary competence required of the staff. Cross-referencing the staffing lists for the first week of Go Live with the listing of who has completed the EMR education is an additional tactic to ensure all employees scheduled have attended the required training. Lastly, working with the CEs to have an EMR class the first day of Go Live eliminates the worry of the one employee showing up unprepared for EMR.

Designate superusers. The superuser concept is key to successful EMR implementation. The superuser becomes the champion on each unit for the successful adoption of the EMR. They also build the confidence of all end-users. Superusers campaign and persuade the end-users in accepting the EMR while creating enthusiasm and excitement. When Go Live occurs, have a central command center where IT staff is located 24/7 for several weeks. This provides a central contact area for EMR implementation. During the go live period, hold a shift meeting where all superusers meet to receive updates from the command center staff. It is important to disseminate superusers to areas where their area of expertise is best matched. Equip the superusers with tools for reporting application problems, tip sheets, reference materials, and a listing of important phone numbers including the hotline to the command center. The superusers need to be ready and willing to work on each unit as if they were the core staffing for the day. This means dressed in appropriate nursing uniforms, prepared to assist in the bedside care of

the patient or stand side by side the new EMR user coaching. Appropriate budget planning is essential as well to allow for around the clock superusers on all units during Go Live as well as increasing staffing ratios. This decreases anxiety among end-users and assures business as usual while this monumentous change in practice is occurring.

Have end-users test, test, and test the system prior to Go Live. Not only will the end-users testing the final product build proficiency and confidence, it will also identify any potential problems with real time usage prior to Go Live. It is important to test many patient care scenarios from all disciplines, test on the actual equipment, and test in all physical patient care areas. This assists in identifying problems such as dead zones, equipment problems, and what if situations.

Plan for the meltdowns. Yes, it will happen even in the best prepared situations simply because of the enormous pressure. There are things you can do to help ease the stress such as having a refreshment area in the command center for staff, provide for meals around the clock on the units, and my favorite, have a candy bowl on each unit with a lot of chocolate! Another tip is to make sure all staff including the superusers take a break off the unit. There is an amazing difference in the energy level of staff when they spend time away from the unit, uninterrupted, especially during this demanding timeframe.

Implementing EMR is one of the biggest culture and practice changes nursing has seen for many years. In order to best accept the process transformation, nurses are best suited to lead this worthwhile endeavor. Nursing as a dynamic profession easily adapts to constant change. And as natural leaders, nurses are poised for the challenge of leading EMR implementation. The professional nursing role incorporates the role of coordinating a multidisciplinary team to accomplish a goal, whether that goal is restoring or maintaining the health of a patient or successfully implementing a multimillion dollar EMR system that will change the face of nursing documentation as it has been known for over a century.

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TeleICU: Technology Providing a New Method for Delivering Critical Care Services to the Bedside

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Imagine it is 3 o'clock in the morning, you are concerned about your patient's condition. The patient's attending physician is at home, but your concern warrants a physician with critical care expertise to look at your patient. Imagine all you have to do to get this critical care specialist, also known as an Intensivist, to assess your patient is to push a button located in the room.

A few seconds after you push the button, you hear the sound of a doorbell and the physician announces their entry into the room via a video camera that is mounted on the wall. As the physician begins to offer his/her assistance, you look at a TV screen where you can now see an alert wide-awake Intensivist. Amazingly, this Intensivist is remotely located in a building hundreds of miles away.

You share your concern and together you collaborate on the best course of action for this patient based on the attending physician's and nurses' plan of care. With your assistance and with real time data at hand, the physician quickly assesses the situation, writes orders, types a progress note and reassures you that he/she is there if you need them. The physician then turns the camera off, and with the click of a mouse enters another patient's room, in a different institution hundreds of miles from where you are located.

The scenario above is happening in ICUs across the country. It is called the Tele-ICU (also known as Remote ICU, Virtual ICU, eICU®). The Tele-ICU is

a telemedicine model of care delivery that couples cutting-edge technology with critical care expertise to bring critical care services to patients and direct care providers: no matter the size of the ICU or its location (Celi, Hassan, Marquardt, et al., 2001).

Intensivists save lives and reduce ICU mortality. Studies have shown that ICUs with critical care intensivist directly involved in the care of patients 24/7, experienced lower mortality and length of stay rates; potentially saving over 50,000 preventable deaths a year (Pronovost, Angus, Dorman, Robinson, Dremiszov, et al., 2002; Pronovost, Needham, Waters, Birkmeyer, Calinawan, et al., 2004; & The Leapfrog Group, 2005). Currently, there is a shortage of Intensivists to meet the growing nationwide demands for now and for the future (Kelly, Angus, Chalfin, Crandall, Ingbar, et al., 2004; Angus, Kelley, Schnitz, White, and Popovich, 2000). To leverage these scarce resources, the Tele-ICU is proving to be one solution of using telemedicine technology, along with board-certified intensivists and critical care nurses to reach more critical care patients than traditional methods allow (Rosenfeld, Dorman, Breslow, Pronovost, Jenckes, et al., 2000; Breslow, Rosenfeld, Doerfler, Burke, Zhang, et al., 2004). Remotely located from the ICU, these tele-clinicians work in Tele-ICU Centers that are equipped with state-of-the-art computer systems.

Real time patient information is available to the Tele-ICU clinicians. Through the use of network and interface technology, the staff in the Tele-ICU has instant access to patient information systems, real-time vital signs, evidence-based clinical decision support tools, and software that provides early warning alerts. Each ICU room is installed with high resolution video cameras with advanced audio and two-way visual technology. Video capability is only turned on as needed and no video or audio is recorded. Critical care nurses who work in the Tele-ICU have a nurse patient ratio of 1: 30-50 patients and provide continuous monitoring 24 hours a day. On the other hand, tele-intensivists assume management of between 100 to 150 patients at night when the on-site physicians typically have gone home. The Tele-ICU is a means of ensuring continuous proactive care and prompt intervention when on-site care is not possible.

Within the Tele-ICU Center, the staff work as a team at individual work stations equipped with multiple computer displays and phones with speed dial capabilities. These tools allow the Tele-ICU clinicians the ability to effectively observe, assess, and communicate with family, patients, and on-site care providers. Each patient is prioritized by an acuity system that indicates the frequency of patient

rounding. Patients who are most critical are rounded on, either with a video assessment and/or evaluation of clinical data, more frequently than less critical patients.

The on-site patient care team and the Tele-ICU team partner to provide critical care patients with the best care possible. As an extra set of eyes, ears, and thought processes, the critical care nurses and physicians in the Tele-ICU can help support safety initiatives, such as independent double checks of high risk critical medication infusions; surveillance of best practices, such as deep vein thrombosis and stress ulcer prophylaxis in high risk patients, as well as compliance with evidence-based protocols, such as ventilator associated pneumonia and sepsis protocols.

The Tele-ICU nurses are a back-up support for on-site staff: not a replacement or substitute. Tele-ICU staff can not replace the human hands-on touch, knowledge, and skill that is so important in the holistic care of patients and families. However, without the normal bedside interruptions, the Tele-ICU staff has time to help on-site staff troubleshoot equipment, critically think through clinical situations, and monitor or watch over patients thus freeing up nurses' time to take care of other things.

Thoughts of "Big Brother" watching and patient privacy issues are two concerns most frequently voiced by on-site nursing staff. These concerns often lead to delay in acceptance and integration of the Tele-ICU into patient care. Most important to note is the video cameras are not on all the time, nor do they have the ability to record. In the patient's room, when the camera is turned off, it typically faces a wall away from the immediate patient care area. To alleviate on-site staffs' fear of "Big Brother", the Tele-ICU staff announces their presence in the room by use of a "door bell" and by asking the patient, the nurse, and/or the family if it is okay to enter the room. In addition, to maintain patient privacy during activities such as bathing and private family/physician conversations, the ICU nurse has the ability to request the remote staff to refrain from performing a video assessment. Greater acceptance of the Tele-ICU occurs when on-site staff is involved in the implementation process and when they are provided the opportunity to visit and spend time with the clinicians at the Tele-ICU Center.

The Tele-ICU is an innovative approach that brings technology and clinical experts together in delivering critical care services to the critically ill patient population. Across the nation, many institutions view this as an opportunity to improve quality of care and safety for their patients, as well as, enhance and improve quality of work life for direct care providers.

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Technology Fun and Effective for “Wiihabilitation”

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Deborah Chaffinch

Imagine an inpatient rehabilitation facility where patients have access to a tennis court, baseball field, bowling alley, golf course, and boxing ring. The use of the Nintendo Wii video gaming system makes virtual participation in these sports possible as an adjunct to traditional occupational and physical therapy.¹ Players use a wireless handheld controller to perform the motions used in the real version of each sport. These movements are translated into the context of an onscreen video game.

Nintendo introduced the Wii system in 2006 as a video game experience for people of all ages.² Wii Sports was included with the purchase of the system. The interactive nature of the games is enjoyable, so participation in virtual sports could serve solely as recreational therapy, but innovative therapists quickly recognized the system's potential as a rehabilitation tool. The physical body movements required to play the games during “Wiihabilitation” may improve balance, coordination, range of motion, and strength.³

According to CMS requirements, the patient in an inpatient rehabilitation facility must receive three hours of therapy per day; consisting of physical therapy, occupational therapy, and; if indicated, speech therapy. When the Wii system is used as a therapeutic tool, it must relate to functional goals that are part of the patient's plan of care. Guidelines developed by Rehab Care⁴ identify specific potential goals for each of the games in Wii Sports. For example, goals associated with tennis include:

increase upper extremity range of motion, increase upper extremity muscle strength, increase upper extremity coordination, increase lower extremity coordination, and increase balance. Games may be made more challenging by adding wrist weights or seating the patient on a balance ball.

Documentation of the therapy session should reflect the outcomes associated with use of the Wii system as a treatment device.⁴ Communication between members of the rehabilitation team is necessary to recognize carryover of skills learned in therapy. The nurse may note that the patient requires less assistance with activities of daily living. For example, an increase in standing balance enables the patient to safely adjust clothing after toileting. Or, increased shoulder range of motion allows the patient to complete grooming tasks independently. Such functional gains should be documented and discussed with the therapist.

There are safety issues to consider with use of the Wii system. Nintendo⁵ recommends that players stand three to ten feet away from the video screen. The playing area should be clear of other persons or objects. Holding the controller securely and using a wrist strap reduce the risk of throwing or dropping the remote. These precautions are especially important when bowling or pitching because of the temptation to actually throw the controller.

To reduce the risk of infection, players should perform hand hygiene before and after using the remote controller. A hand gel is convenient if players are taking turns as part of group therapy. Nintendo⁵ recommends using a cloth slightly dampened with water to clean the remote controller, but health care facilities have found the use of disinfectant wipes to be safe and effective.

According to the operations manual,⁵ persons with a seizure disorder or an implanted medical device should consult a physician before using the Wii. Players with a tendency for motion sickness may develop dizziness and nausea. Overuse may lead to tendinitis or carpal tunnel syndrome, but these injuries are less likely to occur with use of the system as an adjunct rehabilitation tool. Overexertion and poor body mechanics should be avoided to prevent muscle soreness.

Games may be played at wheelchair level, but if the treatment goals include increased standing balance, then fall prevention measures are imperative. A staff member may use a gait belt, walker, or parallel bars to provide support while the patient stands. Sternal precautions, total hip precautions, or weight-bearing restrictions may limit or prevent the patient's

participation in “Wiihabilitation”. Rehab Care⁴ also suggests that the patient's ability to follow three-step commands should be a prerequisite for participation in Wii games. Input from the entire rehabilitation team, including the nurse, should be sought to determine if Wii is an appropriate and safe treatment intervention for a patient.

The trend to use Wii Sports as a therapy tool is increasing as information about the system is spread via internet blogs, news coverage, and professional conferences. The release of additional programs, such as Wii Fit, further promotes use of the system in the rehabilitation setting. Research on using the Wii system in rehabilitation has been limited to case studies, but the Robert Wood Johnson Foundation recently provided funding for a research study to determine the effect of the Wii system on recovery of motor skills for stroke survivors.¹

Although Nintendo does not market the Wii system for rehabilitation, the company is pleased with the apparent benefits in this setting. So are the patients, and for many of them, playing Wii with their grandchildren has become a new discharge goal.

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DNA Addresses Pharmaceutical Waste in the Water Supply

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Lisa Wallace

Since the late nineties, the work of environmental scientists has helped the public become more aware of pharmaceutical waste products lurking in our water supply (Bound & Voulvoulis, 2005; Daughton, 2003; Dorne et al., 2007; Kidd et al., 2007; Kolpin et al., 2002; Sherer, 2006; Stackelberg et al., 2004). Their presence there has been attributed, at least in part, to consumer disposal practices. Flushing unused or unwanted medications down the toilet, rinsing them down the sink, and disposing of them to the landfill have all been linked to contamination of ground, surface and drinking water (Bound & Voulvoulis, 2005; Sherer, 2006).

While little is known about the effect these trace environmental pollutants may have on human health, the damage observed in aquatic life substantiates the call for further investigation of possible influences on humans and for safer medication discard methods (Daughton, 2003).

Consensus among researchers points to incineration as the most environmentally sound disposal alternative (Bound & Voulvoulis, 2005; Daughton, 2003b; Seehusen & Edwards, 2006). The challenge then becomes one of making medical waste incineration available to the general populous. In Canada, Australia, and several European Union nations, return programs, established in community pharmacies, have been quite successful, collecting in excess of 600 tons of unused pharmaceuticals per year (Musson et al., 2007). Medications are returned to locked bins located in pharmacies, and bin contents are incinerated in an ecologically responsible manner on an ongoing basis.

Efforts to replicate these continuous take back programs in the United States have been thwarted largely by regulatory statutes. Virtually every state, Delaware included, has laws preventing pharmacists and pharmacies from accepting returned medications from the public (Seehusen

& Edwards, 2006). Complicating the situation even further are federal statutes dictating that controlled substances cannot be legally transferred to anyone other than the person for whom they were prescribed, with the exception of law enforcement officials who may collect them during their normal course of duties (USDOJ, 2008). Consequently, many states have developed and implemented their own unique take back options; some with locked collection bins in pharmacies, local law enforcement offices, or hazardous waste facilities; some operating by mail; some focusing on periodic or one day take back events; none approved or regulated by federal guidelines (Skinner, 2008).

Because of its commitment to protecting the environment and to maintaining the health of Delawareans, the Delaware Nurses Association (DNA) has resolved, to overcome these legal roadblocks. With the help of our colleagues at the State Board of Pharmacy and Christiana Care Health System's Environmental Stewardship Committee, the Nurses Healing Our Planet subcommittee of the DNA has developed and hosted five one-day medication take back events. Nurses and police officers avail themselves to the public for the purpose of collecting unused or expired medications. Pharmacists from the state board of pharmacy and Christiana Care volunteer strictly for the purpose of separating non-controlled from controlled substances, which are then incinerated under the watchful eye of law enforcement.

The most recent of these events was held at Christiana Hospital's Ammon Education Center on April 23, 2009. Collaboration between the DNA and Christiana Care Health System (CCHS) resulted in an enormously successful collection. Volunteer nurses from the DNA and from CCHS received medication from 146 parties who returned 3,540 items contributing to the safe disposal of 346.32 pounds of medication. Participants returned a panoply of over-the-counter medications, prescription drugs, contraceptive devices, vitamins, herbal supplements, inhalers, diabetic syringes and lancets, and even veterinary medications. Many of the most popularly prescribed pharmaceutical classes were received, including: antihypertensives, anti-inflammatories, lipid-lowering agents, antidepressants, anticonvulsants, synthetic steroids, antineoplastics, antibiotics, anxiolytics, and bronchodilators. Perhaps the most notable items returned were a thirty-five year old bottle of paregoric and a thirty-three year old bottle of Phenobarbital elixir.

Participants were greeted by a CCHS staff member and directed, by a police officer, to an intake table. Here they turned over their medication to a nurse and completed a brief survey. Medications were then screened by pharmacists who separated controlled from non-controlled substances. Controlled substances remained in the custody of drug enforcement agents. Those officials estimated the value of the controlled substances returned, enough to fill a five gallon tub, at \$300,000 to \$400,000. Non-controlled substances moved forward to a second group of nurses who separated liquids, pills and inhalers, placing them in designated containers in preparation for disposal.

There are universal practices of which nurses participating in these events must remain aware. Some participants do bring in syringes, lancets and even used intracavitary devices. When bought

from home, these items are most often transported in containers that conceal what they are. Caution must be used when unpacking any container at these events, especially when that container does not clearly display its contents.

Nurse participants also noted that a good deal of otherwise usable medication was returned for disposal and, therefore, went to waste. The most straightforward way to mitigate the risk and waste posed by disposal would be to reduce the quantity of drugs available for discarding. Practitioners are encouraged to prescribe only when absolutely necessary and to do so in small quantities, especially when prescribing new medications that may cause untoward reactions. Samples should be dispensed in small quantities, and only to patients who will assuredly use them. Lastly, patients should be informed about the economic and environmental ramifications of wasted medication, and should be encouraged to consult their practitioner before abandoning any pharmacotherapeutic regimen (Cameron, 1996).

The incredible teamwork and volunteerism of the participating nurses, pharmacists, and law enforcement officers provided a wide-ranging and important service to those visiting this disposal event. Overall, the participants came from twenty different municipalities and returned an average of 24 medications. The majority was female ranging in age from 65-79 and had been storing the medications for over two years. Some commented that the event provided a certain level of closure for them as the items brought in belonged to deceased loved ones. Most acknowledged that had the collection event not been offered they would have disposed of the medication to the toilet or trash or not at all.

The presence of pharmaceuticals in ground water, surface water, and drinking water is a problem that will continue to escalate as the population expands and more medications are dispensed. True consequences to environmental and human health may not be known for years. In the meanwhile, it is prudent to minimize water contamination as much as possible by limiting improper disposal of unused and expired medications. Until such time as public policy will allow convenient, ecologically sound disposal options, the DNA—in partnership with CCHS which has just approved the financial sponsorship of semi-annual events—will serve the community by offering periodic medication take-backs.

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Introducing the Delaware Nurses Association License Plate

The Delaware Nurses Association is proud to offer the first ever Delaware license plate celebrating nursing. In order for the DNA plate to go into production, we will need to have 200 applications. The cost of the license plate is \$10 plus \$40 which will go towards the development of the Delaware Nursing Foundation and nursing scholarships. The numbers 1-20 reserved for a silent auction. Proceeds will go toward the Delaware Nursing Foundation and nursing scholarships. To download the application, visit our website at www.denurses.org. Numbers will be assigned in the order applications are received.

DNA members will have the opportunity to apply for this plate before being opened to the general nursing community. There will be an

increase in price for non-members (to be set by the DNA Executive Committee). Not a member? Visit the DNA website to join or complete the membership application in this edition of the Reporter.



Data Bits



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Dot Baker

Technology and nursing are intricate partners in every practice setting. This column presents: types of communication tools, examples of technology communication, practice settings, multiple resources, Joint Commission, companies, new products & devices, books, evidence-based practice, position paper, publications & articles, and research studies. The information illustrates some basic technology principles and usage experiences that nurses in clinical practice and education can easily apply.

TYPES OF COMMUNICATION TOOLS:

Blog (contraction for weblog) is a type of website that is usually maintained by an individual. It has regular entries such as commentaries, event descriptions, and/or graphics.

Folksonomy is a method to create key words or terms (tags) to categorize content. Other names are collaborative tagging, social classification, social indexing, and social tagging.

Listserv is an automatic e-mail broadcast to all subscribers who are on the broadcast list.

Podcasts deliver syndicated content to subscribers who download the item in order to view it.

Rich Site Summary (RSS) delivers regular updates of changing web content. News-related sites and other publishers syndicate their information into a RSS Feed. You need a Feed Reader or News Aggregator software in order to grab the RSS feeds from various websites and display them for you to read and use.

Social networking is a method to build online communities. Participants share and explore common interests/activities. Users can interact via e-mail and instant messaging. Examples are: Twitter, Facebook, and MySpace.

Web 2.0 characterizes a second generation of web development and design. It uses the worldwide web to facilitate communication, collaboration, and information sharing. Examples include: web-based communities, hosted services, and applications such as social networking site, wikis, blogs, video-sharing sites, and folksonomies.

Webcast or Netcast broadcasts live or delayed audio/video messages to multiple users. Instructors use webcasts to deliver lectures. Organizations may deliver press conferences.

Webinar is a web-based seminar (presentation, lecture, workshop) that is transmitted via the world wide web. Webinars are interactive between the source and the user.

Wiki is a website that contains collective works of multiple authors. Each author can collaboratively edit existing content.

YouTube is a website on which users can upload, share, and view videos. Individuals or companies can upload videos that usually are self-generated movie clips, music, and/or other organizational materials.

EXAMPLES OF TECHNOLOGY COMMUNICATION:

Webinar: Robert Wood Johnson's 5/13/09 webinar: "Understanding the Rise of Suicide Attempts in Latina Teens" @ <http://www.rwjf.org/pr/product.jsp?id=42528>

Webinar: Healthcare Informatics' 5/21/09 webinar "How to Extend the Hospital Health Portal for Community HIE" [health information exchange] to improve referral processes @ <http://vendomewebinars.com/ME2/dirmod.asp?sid=7D6DBF0E417542D1BD2B73CAE9E1218A&type=gen&mod=Core+Pages&gid=4E4FE7319B64447BBF325B847463ECCD>

Listserv: Institute of Medicine (IOM) news announces new releases, upcoming events, and other new online offerings available from (www.IOM.edu) IOM provides independent, objective, evidence-based advice to policymakers, health professionals, the private sector, and the public.

Listserv: American Nurses Association SmartBrief news updates report "Cell Phone Elbow" or cubital tunnel syndrome (repetitive overuse during our wired age) @ http://news.yahoo.com/s/hsn/20090603/hl_hsn/cellphoneelbowanewillforthewiredage

Multiple technology features: Nursing Center.com offers news updates, clinical resources, continuing education, virtual "open house" tours of healthcare facilities, employment opportunities, Webinars, audio seminars, professional reading resources, online surveys, and links to multiple journals.

PRACTICE SETTINGS:

A variety of nursing organizations and specialty practices feature and incorporate technology in their websites, resources, continuing education, and news updates. Examples are: cardiac, critical care, oncology, perinatal, nursing education, school nursing, public health, home health, occupational, longterm care, rehab, administration, education & training, etc.

Critical Care—Allnurses.com Technology's impact on critical care nursing (2008) @ <http://allnurses.com/nursing-articles/technologys-impact-critical-302362.html>

MULTIPLE RESOURCES:

Alert system for public health—General Electric (GE) Healthcare partnered with the Centers for Disease Control & Prevention and Johns Hopkins University to create a rapid response public health alert system about issues such as influenza, tainted foods, etc. @ http://www.businessweek.com/innovate/content/apr2009/id2009046_822746.htm

Alert system for Food & Drug Administration (FDA)—FDA develops new MEDWatch\Plus\Portal with a central entry point and reporting form for consumers, companies, others to submit concerns @ <http://www.healthdatamanagement.com/news/FDA-28230-1.html>

Clinical Education & Practice—Medical schools prompt students to use smartphones as learning and communication tools as they prepare to enter practice environments that are immersed in information and technology @ <http://www.rwjf.org/humancapital/digest.jsp?id=10811>

"Communication lapses and patient safety"—nurse focus group discusses hospital communication lapses that affect patient safety and "ideal technology" to address those lapses @ <http://www.medpagetoday.com/Blogs/13644>

Family-initiated rapid response—Institute for Healthcare Improvement has a how-to guide, references, tools, brochures for pediatric teams @ www.ihf.org

Grants for technology research—National Institutes of Health (NIH) grants will support research about information technology initiatives @ <http://www.healthdatamanagement.com/news/-28048-1.html>

Health information technology (HIT) & hospitals—Survey of 3000 hospitals showed that less than two percent use comprehensive electronic health records within overall technology Health Information Technology (HIT) initiatives @ <http://www.rwjf.org/qualityequality/product.jsp?id=40288&c=EMC-ADV>

Health information technology (HIT) and healthcare reform—HIT can contribute to cost-containment to fund healthcare reform @ <http://www.healthcareitnews.com/news/baucus-touts-hit-key-healthcare-reform>

Health information technology and patient preferences—Study showed that patients desire full access to all medical information, may concede some privacy, and expect technology to increase in all aspects of their medical care @ <http://www.healthcareitnews.com/news/study-reveals-patients-attitudes-toward-emr-conversion>

Health information technology & electronic medical records (EMRs)—Kaiser Permanente offers flash drives with members' health information. Stakeholders identify advantages and disadvantages @ <http://www.sacbee.com/business/story/1879519.html>

Health literacy—Institute of Medicine (IOM) held a roundtable to discuss challenges with low health literacy for some consumers and communities during emerging interactive health

information technologies @ http://www.iom.edu/?id=32786&utm_medium=email&utm_source=Institute%20of%20Medicine&utm_campaign=04.13.09+IOM+News&utm_content=Old+Name+List&utm_term=

Hospital executive "top 10 list of health technologies"—Executives have to consider organizational strategic plans, budgets, patient and clinician needs, & other factors toward decision in "top 10 technologies" such as electronic medical records, alarm integration technology, radio-frequency identification, scanner services, etc. @ <http://www.healthcareitnews.com/news/research-firm-lists-top-technologies-impacting-hospital-suite-executives>

Medication safety & robot technology—hospital uses robot, bar-coding, and electronic medical record to address medication safety to reduce estimated annual 400,000 preventable drug-related injuries @ <http://www.ohio.com/business/43254797.html>

Medication safety & technology—automate medication order, administration, and record-keeping @ <http://www.healthdatamanagement.com/news/medication-28139-1.html>

Nurse communication system—Cisco, a network product supplier, announced a Cisco Nurse Connect which gives nurses two-way communication with patients and other healthcare personnel/team members, and caregivers @ <http://www.eweek.com/c/a/Health-Care-IT/Cisco-Aims-to-Improve-Nurse-Communications-792615/>

Nurse-designed technology solutions—Nurses use emerging technologies such as wireless communications, real-time workflow systems, electronic trackers, etc. @ <http://nursing.advanceweb.com/editorial/content/editorial.aspx?cc=200146&CP=2>

Nurse involvement in hospital technology systems—Nurse leaders request more input and consideration of nursing roles and activities to develop electronic health records (EHRs) @ <http://www.rwjf.org/humancapital/digest.jsp?id=10202>

Patient monitor system—iCare remote patient monitoring system uses six computer screens and multiple monitors to observe patients for potential conditions such as irregular heart beats and unsafe ambulation situations. The nurse observers then contact the patient care unit for prevention and intervention @ <http://www.azcentral.com/news/articles/2009/04/09/20090409gr-banner0411.html?&wired>

Patient monitor and update system—Hospital uses monitoring system to track surgical patients' status, update waiting family, and augment verbal staff communication [and video of the system] @ http://www.wwaytv3.com/hospital_monitoring_system_eases_worries/04/2009

Simulation training—Some education and training may use more sophisticated simulation techniques in a safe practice environment [and video] @ <http://news.bbc.co.uk/1/hi/health/8034464.stm>

Telemedicine and childhood diabetes care—school-based interventions with videoconferencing improved communication and disease management @ <http://www.healthcarepublic.com/news/index.cfm?fuseaction=HCR.News.PracticeStaff.LatestNews.Article&nNewsID=909408&sHashCode=#AddCommentAddComment>

"Trends in healthcare technologies"—Vendome Group, LLC offers a series of publications about technology investment, patient safety, patient services, infection control, disaster preparedness, etc. @ <http://www.vendomegrp.com/index.asp?PageAction=VIEWPROD&ProdID=6112> Research series subscription @ <http://vendomegrp.com/index.asp?PageAction=VIEWPROD&ProdID=6159>

Web or computer-based smoking cessation program—Programs show promise for cost-effective, accessible, and successful use @ <http://health.usnews.com/articles/health/healthday/2009/05/26/to-quit-smoking-try-logging-on.html>

Wireless healthcare technology—The West Wireless Health Institute researches the use of wireless technologies to advance healthcare in areas such as clinical research and biomedical devices @ <http://www.healthcareitnews.com/news/west-wireless-health-institute-receives-45m-boost>

Data Bits continued from page 17

JOINT COMMISSION:

Electronic accreditation and certification manuals (E-edition) @ <http://www.jointcommission.org/Standards/Manuals/>

National patient safety goals @ <http://www.jointcommission.org/PatientSafety/NationalPatientSafetyGoals/>

RSS Feed for "What's New on the Joint Commission Website" @ <http://www.jointcommission.org/Library/WhatsNew/>

"Falls Prevention Webinar Series" @ <http://www.jcrinc.com/Audio-Conferences/Falls-Prevention-Series/1713/>

Wiki Healthcare—interactive forum for healthcare professionals to discuss and collaborate @ <http://wikihealthcare.jointcommission.org/twiki/bin/view/Home/WebHome>

COMPANIES:

Fitne (offers multimedia educational programs via a Virtual Learning Resource Center) @ <http://www.fitne.net/>

PEPID (offers electronic resources via online, handheld, and wireless technology; offers point-of-care access to integrated data; offers specialty programs for multiple healthcare and emergency providers) @ <http://www.pepid.com/company/profile.asp>

McKesson (offers multiple links to products, news, and webinars such as "Efficient Management of Medical Equipment and Carts") @ http://www.mckesson.com/en_us/McKesson.com/

Wellness Councils of America (WELCOA) offers a publication with tips about using technology tools to evaluate wellness programs @ <http://www.welcoa.org>

NEW PRODUCTS & DEVICES:

Devices and Technology such as podcasts and electronic medical records (EMRs) @ <http://www.nursezone.com/Nursing-News-Events/devices-and-technology.aspx>

BOOKS:

McGonigle, D., & Mastrian, K. (2009). *Nursing informatics and the foundation of knowledge*. Sudbury, MA: Jones & Bartlett.

National League for Nursing offers "The Living Book of Web-based Teaching and Learning." The chapters are online courses that use an interactive book metaphor to organize the content. They are The Net Generation: Implications for Nursing Education and Practice & Best Practices in Online Learning @ <http://www.electronicvision.com/nln/index.htm>

O'Neil, C.A., Fisher, C.A., & Newbold, S.K. (2004). *Developing an online course: Best practices for nurse educators* (Springer Series on The Teaching of Nursing). New York: Springer.

EBP:

Cochrane Collaboration search for "nursing and technology" reveals 74 sources such as nursing record systems, infection control, information technology, nursing-led intermediate care, etc. @ <http://www.cochrane.org/>

Oncology Nursing Society "Toolkit on Evidence-based Practice" offers webcasts and virtual sessions @ <http://onsopcontent.ons.org/toolkits/evidence/Toolkit/index.shtml>

POSITION PAPERS:

AACN (2005) AACN White Paper: Distance

Technology in Nursing Education @ <http://www.aacn.nche.edu/Publications/positions/whitepaper.htm>

PUBLICATIONS & ARTICLES:

Turisco, F., & Rhoads, J. (2008). *Equipped for efficiency: Improving nursing care through technology*. Retrieved March 7, 2009, from <http://www.chcf.org/documents/hospitals/EquippedForEfficiency.pdf> [Prepared for the California Healthcare Foundation]

Fetter, R.S. (2009). Curricular strategies to improve baccalaureate nursing information technology outcomes (Abstract). *Journal of Nursing Education*, 48(2). Retrieved March 7, 2009, from <http://www.journalofnursingeducation.com/showAbst.asp?thing=36825>

Cannon-Diehl, M.R. (2009). Simulation in healthcare and nursing: State of the science. *Critical Care Nursing Quarterly*, 32(2), 128.

Maxwell, S.M. (2009). WebQuests: A viable solution to meeting the continuing professional education needs of home health care nurses. *Home Health Care Management & Practice*, 21(3), 171-176.

Campbell, T.B. (2009). Role socialization: Designing a web-based program to orient new school nurses. *Journal of School Nursing*, 25(2), 117-125. [Virginia Department of Education]

RESEARCH REPORTS:

Aktar-Danesh, N., Baxter, P., Valaitis, R.K., Stanyon, W., & Sproul, S. (2009). Nursing faculty perception of simulation use in nursing education. *Western Journal of Nursing Research*, 31, 312-319.

Parker, B.C., & Myrick, F. (2009). A critical examination of high-fidelity human patient simulation within the context of nursing pedagogy. *Nurse Education Today*, 29, 322-329.

Schneiderman, J., Corbridge, & Zerwic, J.J. (2009). Demonstrating the effectiveness of an online, computer-based learning module for arterial blood gas analysis. *Clinical Nurse Specialist*, 23, 151-155.

Green M.J., & Levi, B.H. (2009). Development of an interactive computer program for advance care planning. *Health Expectations: An International Journal of Public Participation in Health Care and Health Policy*, 12, 60-69.

Welcome New and Reinstated Members!

Monica Boyle
 Elisabeth Bradley
 Pamela Butler
 Alice Collins
 Mary Cullen
 Virginia Davis
 Carol Deely
 Maureen Dominelli
 Mary Eppelheimer
 Nancy Farmer
 Shannon Fensick Tatman
 Theresa Johnston
 Ann Keane
 Alana King
 Elenie Lochonic
 Michele Logan
 Cynthia Madden
 Janine Martin
 Nancy Parsons
 Colleen Schwandt
 Kim Scott
 Donna Shaffer
 Michelle Sipple
 Rachel Smigelski-Theiss
 Doreen Smokes
 Cynthia Spears
 Georgianna Telford
 Robin Thomas
 Elizabeth Thomas-Bauer
 Melody Thorpe
 Polina Ting
 Denise Westbrook
 Cynthia Williams
 Christina Wilson
 Russell Zehnacker

Lincoln University, PA
 Lincoln University, PA
 Swarthmore, PA
 Wilmington
 Hockessin
 Townsend
 Wilmington
 Newark
 Wilmington
 Newark
 Bridgeville
 Middletown
 Smyrna
 Dover
 Newark
 Logan, NJ
 Salisbury, MD
 Wyoming
 New Castle
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 Lewes
 Wilmington
 Middletown
 Newark
 Elton, MD
 Hockessin
 Newark
 Wilmington
 Newark
 Newark
 Lewes
 Newark
 Bear
 Bear

Membership Benefits

Full DNA/ANA Membership

- \$229 per year/\$19.59 monthly, electronically
- Employed-full time/part time
 - Save up to 45% on conference registration
 - Save on ANCC certification fees
 - Save 10% on professional liability insurance with Marsh*
 - Free and discounted online continuing education
 - Save 10% on personal accounting fees
 - Discounts to insurance programs such as life, disability, job loss
 - Email alerts
 - Online networking-DNA Facebook page and ANA Nurse Space
 - Publishing opportunities and discounts
 - National and State leadership opportunities
 - Much more!
- * Must hold certification from ANCC; one-time savings.

Delaware State-Only Membership

- \$149 per year
- Employed-full time/part time
 - Save up to 45% on conference registration
 - Free and discounted online continuing education
 - Save 10% on personal accounting fees
 - Discounts to personal insurance such as life, disability, job loss
 - Email alerts
 - Online networking-DNA Facebook page
 - Publishing opportunities and discounts
 - State leadership opportunities
 - Much more!

American Nurses Association Only Membership

- \$179 per year
- ANA Smart Brief
 - ANA Nurse Space
 - Federal lobbying
 - Discount to national conferences
 - Save on ANCC certification
 - Free and discounted publications
 - Much more!

Coming soon!

Delaware license plates for registered nurses. Only available to full and state-only members.

DNA has partnered with the following organizations for member discounts and programs.



InsureEZ.net



Hewlett and Company, Inc.
Tax Preparation, Bookkeeping & Payroll

Get Liability Insurance



Get a DNA Credit Card through



Delaware Nurses Association/American Nurses Association Membership Application

Name	Credentials
Home Phone	Work Phone
Home Email	Work Email
Mailing Address	
City, State, Zip	
RN License #	State
Employer/Address	
Position/Title	
Permission to print name in the Reporter as a new member? <input type="checkbox"/> Yes <input type="checkbox"/> No	

School

Highest level of education

Return form to:
Delaware Nurses Association
Orchard Commons Complex
5586 Kirkwood Highway
Wilmington, DE 19808

Membership Category (check one box)

Full DNA/ANA Membership Dues

- \$229 per year/\$19.59 monthly, electronically
- Employed-full time/part time

DNA State-Only Membership Dues

- \$149 per year
- Employed-full time/part time

ANA National-Only Membership Dues

- \$179 per year

Reduced Membership Dues

- \$114.50 per year/\$10.04 monthly, electronically
- Full-time Student
 - New graduate from basic nursing education program, within 6 months after graduation (first membership year only)
 - 62 years old or over and not earning more than Social Security allows
 - Not employed

Special Membership Dues

- \$57.25 per year/\$5.27 monthly, electronically
- 62 years of age and not employed

Dual Membership Due

- \$95.00 per year
- RN holding membership in ANA through another state; proof of membership required

Methods of Payment

- Full Annual Payment: Cash, Bank Card or Check made payable to the American Nurses Association
- Electronic Withdrawal: Monthly electronic withdrawal from checking account (Authorization form on ANA application—includes \$6 service charge)

 Visa/MC Number Expiration

Authorization

This is to authorize ANA to withdraw 1/12 of my annual dues from my checking account each month on or after the 15th day of each month, which is designated and maintained as shown by the enclosed check for the first month's payment. ANA is authorized to change the amount by giving the undersign thirty (30) days written notice. The undersign may cancel this authorization upon receipt by ANA of written notification of termination twenty (20) days prior to deduction date as designated above.

 Signature for EDPP authorization

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