2nd Annual Transplant Symposium:
Transplant in 2012: Optimizing Outcomes Through Seamless Communication

Saturday, October 13, 2012

Robert S.D. Higgins, MD, MSHA
Executive Director, Comprehensive Transplant Center

Improving People's Lives
through innovations in personalized health care

Wexner Medical Center
Ohio State
The OSU Comprehensive Transplant Center

- 2nd Annual Transplant Symposium:
  - Transplant in 2012: Optimizing Outcomes Through Seamless Communication
TRANSPLANT IN 2012: OPTIMIZING OUTCOMES THROUGH SEAMLESS COMMUNICATION

COURSE OBJECTIVES

At the conclusion of this activity, learners will be able to:

- Describe the referral and patient-selection process for solid organ transplantation

- Communicate the role the electronic medical record plays in improving communication with referring physicians

- Discuss the role of the primary care/referring physician in the care of the transplant patient
TRANSPLANT IN 2012: OPTIMIZING OUTCOMES THROUGH SEAMLESS COMMUNICATION

AGENDA

Saturday, October 13

8 a.m. Registration & Continental Breakfast
8:30 a.m. Welcome and Opening Remarks
Todd Pesavento, MD
8:45 a.m. Honoring the Gift and Maximizing our Potential in 2012
Robert Higgins, MD, MSHA
9:45 a.m. Presentation of Nursing Quality Leadership Award
Laura Stillion, MHA
10 a.m. The Importance of Communication in Transplantation
Cathy Garvey, RN, CCTC
Clinical Director
University of Minnesota Medical Center
11 a.m. BREAK

11:15 a.m. Maximizing Communication in the Electronic ERA
Jeffrey Sneddon
Assistant Director Clinical Systems Comprehensive Transplant Center
The Ohio State University Wexner Medical Center

12:15 p.m. Organ-Specific Breakout Sessions for Heart, Liver, Kidney and Pancreas
Laura Stillion, MHA

Breakout session topics include:
- Absolute and Relative Contradictions to Transplantation
- Update on Clinical Practice and Outcomes
- Research Initiatives
- Post Transplant Management

1:30 p.m. Closing Remarks
Todd Pesavento, MD
OSUMC Comprehensive Transplant Center

Honoring the Gift of Organ Donation

Maximizing our Transplant Potential in 2012
TRANSPLANTATION- Quality and Quantity of LIFE
Transplant Stories

HOPE, PROMISE, RENEWAL....

Transformative Power of Organ Donation and Transplantation
Transplant Success

GOOD DONOR

GOOD RECIPIENT

GOOD OUTCOME
Louis Washkansky, recipient of the historic transplant, smiles after regaining consciousness.
Heart Transplantation

Rags to Riches . . .

Timeline

1960 - Lower and Shumway describe surgical technique in dogs. Surg Forum 11:18, 1960

1967 - Christian Barnard performs first human to human heart transplant in 54 year old man with severe heart disease
  - 24 year old donor injured in car accident; removed from respirator and heart removed after it stops
  - Patient succumbs 18 days after surgery 2° to pneumonia

1968 - Shumway performs first heart transplant in U.S.

1968 - 102 transplants performed at 52 centers
  - 30% (30/108) alive at 12 weeks after surgery

1981 - Cyclosporine immunosuppression introduced
Organ Donation and Transplantation

Lessons Learned from Richmond’s Past
Time Line: William Tucker v. Dr. Richard Lower et al

-------May 24, 1968-----------------------May 25\textsuperscript{th}----------------- May 25\textsuperscript{th}

6:05pm 2:05am 9:30am

Admitted to MCV
Tracheotomy
discuss transplant

Unconscious unaccompanied by
Family or friend
ME present

May 25\textsuperscript{th} 1:00pm 2:00pm 3:45pm

Neurological consult
EEG flat, exam
“brain death”, stable VS

Dr. Hume seeks ME
Permission to release
“No family found”

“unclaimed body”

May 25\textsuperscript{th} 3:45pm

No family found
ME releases body

[---------May 25\textsuperscript{th}-----------------------------]
1:45pm-3:00pm

Name of brother, business address, phone #

Friend of Tucker Family
found in Tucker’s wallet

Makes inquiry a hospital information
Desk...no information given
Time line: William Tucker v. Dr. Richard Lower et al

--- May 25th ----------------- May 26th ----------------- May 31st
3:33pm
16th heart transplant
Bruce Tucker’s body given to
in world/ 1st in VA
family, no disclosure of transplantation
Recipient dies

--- January 1970 ----------------- May 26th 1970 ---
Claim filed against MCV
Surgeons under Wrongful Death Act
After seven-day trial, jury
delivers verdict
At Issue

- Was Bruce Tucker legally dead when Dr. Lower removed his heart?
- Did Dr. Lower kill Tucker by removing his heart?
THE JURORS deliberated only 47 minutes in reaching their decision at the end of a seven-day trial, believed to be the first anywhere on a lawsuit alleging wrongful death of a donor in a heart transplant. The plaintiff, a Richmond shoe repairman, William E. Tucker, had filed the suit as administrator of the estate of his deceased brother, Bruce D. Tucker, a 54-year-old laborer here and the donor in Virginia's first heart transplant on May 25, 1968 at MCV.

Bruce Tucker entered MCV Hospital on the night of May 24, 1968, with massive head injuries sustained in an accidental fall.

Doctors at the hospital said Tucker died the next day, some hours before the transplant, of fatal brain injuries incurred in the fall.

But William Tucker alleged that the respiration, pulse, blood pressure and body temperature.

Rutledge said afterwards: "The verdict of the jury clearly indicates that not only were those physicians in no way wrong, but also it's a clear indication that the time and determination of death are judgments basically within the province of the medical profession.

"As to this particular case," he added, it said the doctors were right as to the time Bruce D. Tucker ceased to be a person or an individual, which was when his brain totally and irreversibly ceased to function.

State Sen. L. Douglas Winder, Tucker's lawyer, said the legal definition of death first adopted by Judge A. Christian Compton when he rejected a defense dismissal issue two days ago "is, we submit, the correct definition of evidence and relies chiefly upon medical testimony."

"In an unexpected, last-minute move yesterday, Judge Compton broadened the definition of death that he previously gave the jury as applicable law in the case, including the medical as well as the legal determination and allowing the jury to choose either of the two or a combination of them.

Winder said, "It's awfully difficult to fly in the face of the system. Doctors are presumed to be doers of good and people picture them in their white coats with no potential for wrong.

"And yet," he added, "medical history is replete with instances of malpractice, though the proof required is so often impossible to come by. The closed fraternity rules out any evidence and relies chiefly upon medical testimony."

"We have not sought to diminish merit of science and the medical profession," he stated, "but to portray what is and what should be."

Bruce said, "Even if we didn't accomplish anything from a financial standpoint (Tucker was seeking $100,000 in damages), we have set some guidelines for future medical conduct and I'm quite certain this type of conduct wouldn't happen again.

"We never questioned ability or professionalism standards," he added, "but the manner in which Bruce Tucker's case was handled did not, in my opinion, come up to the type of conduct you would expect."

That instruction said the time of death is when life ceases, a "ceasing to exist" that isn't continuing but occurs at a precise time that must be established according to the facts in each specific case.

In determining the time of death in the Tucker case, the jury was told that they could consider several elements, any one of more of which they might find from the evidence to be controlling.

Some of these elements were: the time of the total stoppage of the circulation of the blood; the time of the total cessation of the other vital functions consequent thereon, such as respiration and pulsation; the time of complete and irreversible loss of all function of the brain; and, whether or not the afore-mentioned functions were spontaneous or were being maintained artificially or mechanically.
Heart Transplantation

“Growing Pains”

Questions raised by early experience

1. What about the donor?
   Was she dead or did we facilitate death?
   What are the criteria of death?

2. Who should perform transplants
   Where should they be done?

3. How do we proceed with potentially lifesaving technology? (with bad early results)
National Organ Transplant Act
42 USCS, 273 et seq. (1994)

- Passed as response to continuing shortage of organs
- Creates Organ Procurement and Transplantation Network (OPTN)
- Establishes system for matching donor organs with potential patients in need and developing policies for equitable allocation of organs
- Supervised by Dept of Health and Human Services
United Network for Organ Sharing (UNOS)

- Originated from South Eastern Organ Procurement Foundation (SEOPF) in 1986
- Sole bid for OPTN contract in 1987
- Direct reporting/oversight from HRSA/HHS
- 300+ employees
- As a contractor, UNOS has specific “deliverables” as part of its responsibilities
Facts about Transplantation in the United States

As of January 6, 2012 OPTN membership included the following:

- 243 Transplant Centers
- 3 Business Members
- 57 Operating Organ Procurement Organizations (OPO’S)
- 157 Histocompatibility Laboratories
- 8 General Public Members
- 16 Medical/Scientific Organizations
- 9 Individual
- 388 TOTAL
The Problem

Demand

Supply
Facts about Transplantation in the United States

On January 6, 2012, National patient waiting list for organ transplant includes the following:

<table>
<thead>
<tr>
<th>Registrations</th>
<th>Active</th>
<th>Total</th>
<th>Patients</th>
<th>Active</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Waiting for kidney</td>
<td>59,379</td>
<td>96,610</td>
<td>Waiting for kidney</td>
<td>55,861</td>
<td>90,511</td>
</tr>
<tr>
<td>Waiting for liver</td>
<td>13,582</td>
<td>16,902</td>
<td>Waiting for liver</td>
<td>12,957</td>
<td>16,120</td>
</tr>
<tr>
<td>Waiting for pancreas</td>
<td>340</td>
<td>1,342</td>
<td>Waiting for pancreas</td>
<td>338</td>
<td>1,327</td>
</tr>
<tr>
<td>Waiting for pancreas islet cell</td>
<td>49</td>
<td>217</td>
<td>Waiting for pancreas islet cell</td>
<td>46</td>
<td>212</td>
</tr>
<tr>
<td>Waiting for kidney-pancreas</td>
<td>1,138</td>
<td>2,174</td>
<td>Waiting for kidney-pancreas</td>
<td>1,101</td>
<td>2,106</td>
</tr>
<tr>
<td>Waiting for intestine</td>
<td>186</td>
<td>277</td>
<td>Waiting for intestine</td>
<td>186</td>
<td>275</td>
</tr>
<tr>
<td>Waiting for heart</td>
<td>2,219</td>
<td>3,134</td>
<td>Waiting for heart</td>
<td>2,213</td>
<td>3,126</td>
</tr>
<tr>
<td>Waiting for heart-lung</td>
<td>32</td>
<td>62</td>
<td>Waiting for heart-lung</td>
<td>32</td>
<td>62</td>
</tr>
<tr>
<td>Waiting for lung</td>
<td>1,321</td>
<td>1,698</td>
<td>Waiting for lung</td>
<td>1,296</td>
<td>1,668</td>
</tr>
<tr>
<td>TOTAL REGISTRATIONS</td>
<td>78,245</td>
<td>122,416</td>
<td>TOTAL PATIENTS*</td>
<td>72,513</td>
<td>112,704</td>
</tr>
</tbody>
</table>
Conversion of Eligible Deaths-2010

Eligible Deaths
N=11,376

Consented Eligible Deaths
N=8,041

Eligible Donors
N=7,606
She never lived in Chicago but longed to stay. Now, instead of returning to Pennsylvania after a visit, the 13-year-old shooting victim will be buried here, her family says.

By Jeff Long

Before she ever knew, Ekhart Gaddy's family hoped a move to Pennsylvania would be an escape from gang violence in Chicago's Humboldt Park neighborhood. And it was.

But a visit back to the old neighborhood ended in a volley of gunfire early Sunday that left the 13-year-old teen dead at Stroger Hospital.

She was supposed to be here for curfew, said her aunt, Ruthie Zayas (left), who watched the shooting.

For the last three months, the girl and her mother had been visiting from Allentown, Pa. where Zayas said the family had moved to escape Chicago's violence.

Kallisti was shot in the head while standing outside Zayas' home in the 200 block of Potomac Avenue about 1:00 a.m. Sunday. She was part of a small group outside that included her mother and teenage sister.

The shots rang out from an adjoining alley as Kallisti and her mother prepared to go to the store to buyUNCHOO. Before boarding a Greyhound bus later in the morning back to Allentown, Zayas said,

"Everyone was just standing there, judging around," Zayas said.

Sunday afternoon, sitting in a lawn chair just steps from where the girl fell, "They came out here and were making sure the area was cleaned up," Zayas said.

Zayas, 46, said police received surveillance footage from a security camera mounted on her apartment building. No arrests had been made by Sunday evening. Zayas

PLEASE SEE GIRL IN PAGE 2
UNOS National Donor Memorial
From One Act of Love

*Six living kidney donors. Six recipients. OSU’s Medical Center pulls off a complicated chain transplant*

Stephanie Tillman wipes a tear beside close family friend Barbara Kavalauskas at a meeting of kidney recipients, donors and others. Tillman donated a kidney to a stranger; Kavalauskas received one.
Conversion Rate by Month, 1999 - 2007

Collaborative starts here

CL based on data from 01/02-04/04 05/04-04/06
Data source: OPTN database as of 3/2008
Facts about Transplantation in the United States

Numbers of Transplants Performed, 2010

- 16,899 kidney (no pancreas) transplants (6,277 living donors).
- 6,291 liver transplants
- 349 pancreas (no kidney) transplants
- 828 kidney-pancreas transplants
- 151 intestine transplants
- 2,333 heart transplants
- 41 heart-lung transplants
- 28,662 TOTAL
IMPORTANCE OF COMMUNICATION
Formula 1-Pit Crew teamwork

- Great Ormond Street takes page from Ferrari racecar team to enhance critical care “hand-offs”

  *Identifies communication errors as responsible for 70% preventable hospital mishaps*

- Identifies leadership of high performing team—’lollipop man” as key to error reduction
Modern transplant program requirements - It's a Team sport

Program requirements

- Physician /surgeon experience
- Multidisciplinary team including nursing, respiratory, ID, critical care, social work, coordinators, anesthesia, pharmacy
- Institutional commitment
- Administrative leadership
- OPO relationship and support
- Quality assurance/Process improvement program
Transplant Care Coordination Model

- Pre Transplant period
- Waitlist period
- Transplant admission
- Post Transplant period
Continuity of Care in Transplantation…
Why is it important?

- Preoperative condition of patient on waitlist impacts outcomes
- Outcomes are tracked by federal regulatory agencies and CMS
- These agencies have expectations at 1 and 3 years for survival which is reflective of follow-up care
- Lapses in perioperative and follow-up care may have significant financial impact on hospital and professional reimbursement
Pyschosocial Outcomes after Transplantation

*Health promoting lifestyle*

- Nutritional, physical activity and health responsibility have major impact on QOL

- Increased self care stress, complications of immunosuppression and complexity of post-transplant care influence behavior

- Predictors of QOL – education, time after transplant, spiritual growth /development absence of stress management and physical activity
Changes in place after botched surgery
Failed kidney transplant at UTMC prompts new safeguards

BY JENNIFER FEHAN
BLADE STAFF WRITER

Lead surgical nurse Sara King placed a small metal bowl into the icy slush that sat just a few feet from the operating table inside Operating Room 5 at the University of Toledo Medical Center.

Ed Hall promptly replaced the metal basin with a square plastic box marked "donor kidney," explaining that this is the new container to be used for organs awaiting transplant.

"Simple is good," said Mr. Hall, administrator of surgical services for UTMC, the former Medical College of Ohio.

PHOTO GALLERY: UTMC kidney transplant tour

The new container, which has both a lid and a label, is a small but significant change in the way UTMC surgical teams are to perform kidney transplants in the aftermath of an Aug. 10 surgery in which a viable kidney was removed from a young man, cleaned, placed in a metal basin, stored in the slush machine to await transplant, and then inadvertently thrown away by a nurse who apparently was unaware the organ was in the slush.

Although the mistake was quickly discovered, it took nearly two hours for the kidney to be retrieved from the hospital's medical waste system, and it could not be safely implanted into the waiting patient, the donor's sister.

- Members of the surgical team must check with the surgeon before going on break.

- An infrared motion detector has been mounted near the slush machine that sounds an alarm when anyone gets close to it.

- A ring-shaped magnetic device has been designed to fit on top of the slush machine. It will have a visual and auditory alarm that will go off when it is lifted.

"I think this operator innovation and improvement, and I think they have begun to do that already," Dr. Jacobs told The Blade last week. Mr. Hall, who was temporarily placed on paid leave after the incident and then was reinstated, said no one in the transplant community had heard of a viable organ being discarded before it happened at UTMC.

"This exact incident isn't on anybody's radar screen in the county — lots of other issues are — so nobody was walking around saying, 'How can we prevent this exact type of incident?'" Mr. Hall said. "This showed us that it could happen."

Checks and balances

Still, Dr. Robert Higgins, director of the comprehensive transplant center at Ohio State University Wexner Medical Center and a former president of the United Network for Organ Sharing, said there is a reason this kind of aberration has not occurred before.

"I think the fact that this hasn't happened anywhere else is probably because there are already checks and balances in place," he said, explaining that OSU requires that donor organs be packaged and labeled after removal and that they not leave the sight of the operating surgeon.

Still, Dr. Higgins said the entire transplant community is following what happened in Toledo, and his own medical center has taken a look at its policies in light of the incident.

"We've reinforced our senses to what we should be doing and how we should be conducting our affairs," Dr. Higgins said.

UTMC said that is a constant process — mistake or not.
The Regulatory oversight of Transplantation…*it’s Alphabet Soup!*
OPTN Scope

- All patients awaiting organ transplant: kidneys, liver, heart, lungs, pancreas, intestine
- All living and deceased organ donors
- All deceased organ donor/candidate matches
- All organ transplants
- All OPOs
- All transplant centers
Transplant Outcomes

- Membership and Professional Standards Committee (MPSC) associated Data Subcommittee (DSC) conducts routine reviews of all transplant program performance by monitoring program outcomes and activity.

- DSC meets four times a year, prior to each MPSC meeting.

- Scientific Registry of Transplant Recipients (SRTR), works in partnership with the MSPC and its Data Subcommittee.

- DSC utilizes the SRTR statistical model for programs that perform ten or more transplants, over a contiguous 2.5 year period (referred to as Large Volume Programs).
MPSC Composition

- 12 Surgeons
- 10 Physicians
- 4 OPO Representatives
- 1 Transplant Administrator
- 1 Lab Director
- 1 Transplant Coordinator
- 2 Transplant Recipients
# Post transplant Outcomes

<table>
<thead>
<tr>
<th>Organ</th>
<th>1 year patient survival</th>
<th>1 year graft survival</th>
<th>5 year patient survival</th>
<th>5 year graft survival</th>
</tr>
</thead>
<tbody>
<tr>
<td>Liver-deceased donor</td>
<td>86.9%</td>
<td>82.4%</td>
<td>73.4%</td>
<td>67.4%</td>
</tr>
<tr>
<td>Liver-living donor</td>
<td>91.2%</td>
<td>84%</td>
<td>76.8%</td>
<td>68.8%</td>
</tr>
<tr>
<td>Kidney-deceased donor</td>
<td>94.7%</td>
<td>89.5%</td>
<td>80.7%</td>
<td>67.1%</td>
</tr>
<tr>
<td>Kidney-living donor</td>
<td>98%</td>
<td>95.1%</td>
<td>90.4%</td>
<td>80.3%</td>
</tr>
<tr>
<td>Kidney-pancreas</td>
<td>95.1%</td>
<td>85.2%</td>
<td>85.8%</td>
<td>71.1%</td>
</tr>
</tbody>
</table>

OPTN/SRTR annual report

Wexner Medical Center
Quality Committees

- Each organ group has a designated quality committee.

- Each committee does routine monitoring of key elements of care utilized in the inpatient setting that are important in the transition of care to the post transplant/ambulatory care setting (Hemoglobin at the time of d/c, Creatine at the time of d/c).

- Results of this monitoring are shared on a quarterly basis as part of the monthly quality committee activities. Committee members discuss results of these monitoring activities, identify any trends/issue if applicable, perform root cause analysis for any issues identified and develop/implement solutions to address problems identified.

- The quality committees are multidisciplinary. Membership includes:
  - Transplant Physician
  - Transplant Administration
  - Transplant Surgeon
  - Transplant Nurse Manager
  - Quality Representative
  - Pre Transplant Coordinator
  - Post Transplant Coordinator
  - Transplant Pharmacy
  - Transplant Infectious Disease
Post Transplant Patient Care - OSUWMC

Admit / Transplant

OR

9 North

Team Rounds
including: PA/NP, Surgeon, Pharma D, Resident, Discharge RN, Charge Nurse

Patient Recovers

Pharma D Consult

Re-admits

Clinic Visit
including: Nurse/NP, Surgeon, physician

24 – 48 hours:
Coordinator to call

4 Week Follow-up Visit

Home

Discharge:
Discharge summary instructions, medical action plan → Output Coordinator (Kinnear)
My Daily Schedule

<table>
<thead>
<tr>
<th>Take These Medications</th>
<th>At These Times</th>
<th>Purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Aspirin</strong> 8mg Tablet(s)</td>
<td>8am, 2pm</td>
<td>Prevents blood clots</td>
</tr>
<tr>
<td><strong>Colace® (Docusate) 100mg Capsule(s)</strong></td>
<td>8am, 2pm</td>
<td>Stool softener. Take as needed for constipation.</td>
</tr>
<tr>
<td><strong>Neoral® (Cyclosporine) 100mg Capsule(s)</strong></td>
<td>8am, 12N, 6pm</td>
<td>Prevents rejection. Never take at the same time as Bactrim.</td>
</tr>
<tr>
<td><strong>Neoral® (Cyclosporine) 25mg Capsule(s) By mouth</strong></td>
<td>8am, 12N</td>
<td>Prevents rejection</td>
</tr>
<tr>
<td><strong>Rapamune® (Sirolimus) 1mg Tablet(s)</strong></td>
<td>8am, 12N</td>
<td>Prevents rejection</td>
</tr>
<tr>
<td><strong>Nystatin 100,000 units/mL</strong></td>
<td>1 mL(s)</td>
<td>Treats/prevents fungal infections. Swish and swallow in mouth. Do not eat or drink for 20 minutes after use.</td>
</tr>
<tr>
<td><strong>Percocet® (Hydrocodone, Acetaminophen) 5mg/325mg Tablet(s)</strong></td>
<td>6pm</td>
<td>Pain reliever. Take 1-2 tablets every 4 hours as needed for pain.</td>
</tr>
<tr>
<td><strong>Alprazolam 0.5mg Tablet(s) By mouth</strong></td>
<td>1 Tablet</td>
<td>Relieves anxiety</td>
</tr>
<tr>
<td><strong>Coreg® (Carvedilol) 12.5mg Tablet(s) By mouth</strong></td>
<td>8am, 2pm</td>
<td>Controls blood pressure; heart medicine</td>
</tr>
</tbody>
</table>

**Only take the medications listed in your Daily Schedule. Check the date of your last schedule to make sure you have the most current medication list. The pharmacist may make a generic substitution for the medication shown in your Daily Schedule. The medication name, dosage strength, shape, color, and size may change as a result of this substitution. Please check dosage strength on your prescription bottle against the dosage strength shown on your daily schedule.**

Healthcare Provider/Title: ___________________________ Date: ____________

[Please sign to indicate understanding and receipt of this information.]

**Care Instructions:**
- Take medications as prescribed by your physician.
- Check for any side effects and report them to your healthcare provider.
- Keep your medication list up to date and review it regularly with your healthcare provider.
- Store medication in a cool, dry place, away from direct sunlight.
- Do not exceed the recommended dosage.
- Notify your healthcare provider if you miss a dose or if the medication is not working as expected.

Wexner Medical Center
National Patient Safety Goals

SBAR:
A Shared Mental Model for Improving Communication Between Clinicians

Kathleen M. Haig, R.N.
Staci Sutton, R.N.
John Whittington, M.D.

Department Editors: Marcia M. Piotrowski, R.N., M.S.,
Peter Angood, M.D., Paula Griswold, M.S., Gina
Pugliese, R.N., M.S., Sanjay Saint, M.D., M.P.H., Susan E.
Sheridan, M.I.M., M.B.A., Kaveh G. Shojania, M.D.
Readers may submit National Patient Safety Goals inquiries
and submissions to Steven Berman (sberman@jcaho.org)
and Marcia Piotrowski (marcia.piotrowski@med.va.gov).
SBAR Communication

Use the following SBAR steps to communicate issues, problems or opportunities for improvement to coworkers or supervisors. SBAR can be applied to both written and verbal communications.

**Situation** - State what is happening at the present time that has warranted the SBAR communication. Example: Patients and visitors are entering the medical center through the wrong doors and getting lost trying to find their destination.

**Background** – Explain circumstances leading up to this situation. Put the situation into context for the reader/listener. Example: The campus has many buildings and is accessible from both E. Washington St. and Eastland Dr. Other entrances are more noticeable than the hospital’s main entrance. MD offices do not have good maps to mark and hand to patients when sending them to our campus, and they often misdirect patients.

**Assessment** – What do you think the problem is? Example: People need something that they can carry with them when they are coming to the hospital so they park outside the appropriate entrance.

**Recommendation** – What would you do to correct the problem? Example: Create a campus visitor guide that includes an “aerial” map of the campus as well as a community map and floor by floor maps. Distribute widely, including to physician offices. Make them available to visitors in admission packets and at all entrances.

*Figure 1.* The information on the laminated poster, also reproduced on the pocket cards for clinicians, describes the **Situation, Background, Assessment, and Recommendation (SBAR)** steps, with an example for each.
Use of SBAR in Admission Reconciliation, 2004–2005

Figure 5. Use of Situation, Background, Assessment, and Recommendation (SBAR) in medication reconciliation at admission improved from a mean of 72% to a mean of 88%.
Use of SBAR in Discharge Reconciliation, 2004–2005

Figure 5. Use of Situation, Background, Assessment, and Recommendation (SBAR) in medication reconciliation at discharge improved from a mean of 53% to a mean of 89%.
Review

Improving clinical decisions and outcomes with information: a review

William M. Tierney *

Regenstrief Institute for Health Care, Department of Medicine, Indiana University School of Medicine,
Rexhebus Veterans Affairs Medical Center, 1411 West Tenth Street, Indianapolis, IN 46202, USA

Received 28 September 2000; received in revised form 23 December 2000; accepted 3 January 2001

Abstract

The clinical information available to clinicians is expanding rapidly. It can enhance clinical decision-making, but it can also confuse the process. To be most useful, information should be available at the time and place it is needed and be specific to the task at hand. In the new paradigm of medicine, one based on continuous quality improvement, useful information must be relevant to both the processes and outcomes of care. Clinical practice guidelines have become increasingly popular for improving the quality of health care. The field of medical informatics can bring cogent information to the point where decisions are being made to augment quality improvement activities in general, and practice guidelines in particular. However, such innovations are dependent on the type, quantity, and quality of information available. This article discusses when guidelines can enhance the quality and outcomes of care and how medical informatics can help achieve these goals. In particular, the barriers to the broad implementation of electronic medical records in a variety of health care settings are explored. © 2001 Elsevier Science Ireland Ltd. All rights reserved.

Keywords: Medical informatics; Computer information systems; Quality improvement
Transplant Signature Program
Teamwork committed to Quality and Quantity of Life –
OSUMC 2010
OSU Leadership Supports Organ donation and Transplantation
Show Us Your “BUCKEYE HEART”
EXCELLENCE IN TRANSPLANT NURSING
Congratulations
For Your
Excellence in
Transplant Nursing
You’re The Best!

Linda Rife &
Becky Miller
Congratulations
For Your
Excellence in
Transplant Nursing
You’re The Best!
Transplant Nursing Excellence