7.7 Give examples to demonstrate how nursing services communicates expectations of direct care nurses’ accountability for quality improvement activities.

Supporting quality improvement activities is fundamental to the role of the professional nurse and it is an integral component of the Professional Practice Model at MGH. Staff Nurses role in supporting quality improvement activities is clearly articulated in numerous ways at the organizational level and through unit-based activities.

Force 1.1 describes the mission, vision and guiding principles for Patient Care Services; we are ever alert for opportunities to improve patient care; we provide care based on the latest research findings. This guiding principle articulates the expectation that nurses be engaged in quality improvement activities. Staff Nurses are first introduced to the Department’s vision and values, as new employees, during the Department of Nursing’s orientation as described in Force 2.3 and Force 11.3.

The Staff Nurse position description further details the expectation that Staff Nurses play an active role in quality improvement activities. The Staff Nurse position description states that the nurse helps define standards of excellence for patient care; participants in improvement of patient care services in a cost-effective way. This delineation allows the Staff Nurse to be an integral member of the care improvement team.

Through the performance appraisal process, Staff Nurses are also evaluated on their ability to problem solve and participate in performance improvement activities, thus setting the expectation of accountability. As described in Force 4.18, one component of the Staff Nurse performance appraisal tool is Team Work/Collaboration. This component focuses on elements of quality improvement:

The extent to which the employee: …contributes to the effective operation of the unit, understands her/his role as member of the health care team, participates in interdisciplinary forums that promote an integrated approach to patient care.

There are also numerous service and unit-based initiatives that clearly communicate expectations of accountability for quality improvement to Staff Nurses. Strategies include; participation in departmental, service and unit-based Practice Committee activities, and communications through Practice Alert posters, education days, staff meetings and retreats. Following are some examples of these initiatives:
• The Endoscopy Unit holds an annual Quality and Safety Retreat for nursing staff and physicians of the Gastroenterology Unit dedicated to identifying and problem solving both patient care and operational concerns. This year, one of the retreat objectives was to explore how to improve performance on specific quality indicators for the unit – hand hygiene standards and universal protocol.

  During the retreat, an interdisciplinary team comprised of Staff Nurses and Physicians was formed. The team developed an evaluation tool to monitor practice in the unit. After the retreat, the team performed surveillance rounds to obtain information about current practice. Information was compiled and presented to staff during quarterly Joint GI Grand Rounds. Staff Nurse representatives also reviewed practice requirements and held open forums with the nursing staff to clearly communicate quality performance expectations.

• On a quarterly basis, each Staff Nurse in the Post Anesthesia Care Unit (PACU) is responsible for performing two audits on the ICU patients’ flow sheets. The Nursing Director and Clinical Nurse Specialist collate these data and distribute the results at staff meetings for review and discussion. As an outcome of the discussion, nurses identify opportunities for improvements related to their documentation practices.

  An area for improvement identified by staff was related to audit completion rates. To improve performance, an e-mail reminder system was implemented. Two weeks prior to the end of each quarter, e-mail is sent to all Staff Nurses reminding them to complete their audits. As a result of this intervention, audit compliance doubled between the first and second quarter of FY 2007 and documentation scores improved significantly.

• OB Competency Day-Developed by the Clinical Nurse Specialist team, this quality improvement program ensures all staff are updated on hospital-wide, unit-based and patient-focused competencies specific to the care of the obstetrical patient through the continuum of care. The forum allows Staff Nurses in Labor and Delivery, Postpartum and the Nursery to review the competencies that affect their practice. Because of the frequency of pregnancy loss, this year’s program also included a section on bereavement focused on the loss of a fetus or infant and how that affects the family both physiologically and psychologically. Attachment 7.7a is a schedule of this year’s program.
• The Cancer Nursing Practice Committee, described in Force 2.3, develops evidence-based
guidelines to improve the quality of patient care and to enhance practice for nurses working with
oncology patients throughout the hospital. The committee recently developed a guideline called:
*Nursing Guidelines to Oral Mucositis Assessment and Management* (attachment 7.7.b). To communicate
Staff Nurse responsibility related to the practice changes associated with this guideline, Clinical
Nurse Specialists conducted in-services to review the Mucositis Assessment algorithm and
developed pocket guides to further support staff. Information about the guidelines was also
disseminated during Nursing Grand Rounds. In addition, a poster supporting this evidence-based
practice change was presented on Research Day during the 2006 Nurse’s Week celebration
(attachment 7.7.c).

• Posters campaigns are another effective mechanism used to outline Staff Nurse responsibilities
related to quality improvement activities. For example, the interdisciplinary Cardiac Clinical
Performance Management (CPM) team developed the *Get to the Green: The Race is On* poster to
support participation in the National Hospital Quality Measures (NHQM) Heart Failure
initiative (attachment 7.7.d). Fifteen inpatient units with highest volume of patients admitted
with a diagnosis of heart failure will receive the posters articulating the need to provide and
document teaching information to patients identified as having heart failure.

Information on the poster includes clear guidelines for the Staff Nurse in the *What You Can
Do To Help* section, while the *How We Are Doing* section will provide each unit with hospital and
unit-specific data that will be used to measure unit-based quality-improvement activities for this
initiative. Posters are expected to be delivered to the unit in the late fall or early winter 2007.
Obstetrical Nursing
Competency Day Schedule – 2007

7:15-8:15 am: Bereavement competency (All OB Staff)

8:30-9:40 am: Patient Care Services Annual competency review: includes Nursing Department competencies

Room Relocation
9:45-11:00 am: Obstetrical Electronic Documentation System (OB TV) (3 Groups)
   1) Break – 35 minutes
   2) OB TV review 35 minutes with Shelly
   3) Nursery Review (TCU level 2): 20 minutes break

11:00-12:00 pm: Infant Identification /Code Pink Review/Heel Stick

12:00-1:00 pm: Lunch

After lunch break into groups:
1:00-2:00 pm: Breastfeeding (all Blake and Ellison 13 staff)
   Triage competency (all Blake 14 staff)

2:00-3:00 pm: Defibrillator review and Infant Code review.

End of Day:
- Yearly clinical skill competency packet
- Packets completed during the day with all competency sheets signed and completed

Lynda Tyer-Viola, RN – Clinical Nurse Specialist
Harriet Nugent, RN – Staff Nurse, Clinical Scholar
Nursing Guide to Oral Mucositis Assessment and Management

MGH Cancer Nursing Practice Committee

Quick Review of Oral Mucositis

- It is a common complication of cancer treatments
- Different cancer therapies can cause mucositis that range from mild (grade I) to severe and possibly life threatening (grade IV).
- Daily oral assessment of appearance and functional ability, along with daily oral hygiene, are imperative to manage and lessen complications of mucositis. These include:
  - Malnutrition
  - Dehydration
  - Pain
Differential Assessment

Look for other types of processes that may be happening in the oral cavity.

**Thrush**
- White patchy plaques on soft palate, throat, sides of mouth. Tongue can be coated.
- Mouth can be sore
- Patient may complain of sour or bitter taste

**Recommendations**
- Refer to provider
- May need culture
- Anticipate anti-fungal therapy
- Different anti-fungal oral formulas

---

**Herpetic Lesions**
- Sudden onset
- Vesicular/induration in nature
- See on lips, sides of mucosa, gums, throat
- Painful
- Can present with fever and malaise
- Immuno-compromised host is at risk for increased frequency and severity

**Recommendations**
- Refer to provider
- May need culture of lesion
- Anticipate antiviral therapy

---

![Thrush](attachment:ethan_access_7.7.b.continued doomed.png)

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![Herpetic lesions](attachment:ethan_access_7.7.b.continued doomed.png)
Attachment 7.7.b. continued
Grade I Mucositis

Management of Grade I

Evaluate Mucosa Daily

Oral Hygiene:
Perform four times per day
- Brush teeth with soft-bristled toothbrush
- Floss daily, if patient already in habit of doing so
- Remove and clean dentures
- Rinse mouth with salt or baking soda solution
- Use agents to protect mucosa
  See MGH Nursing Policy #01-23-01
- Apply water-based moisturizer to lips

Promote oral hydration and nutritional intake.

Grade I (NCI Scale)
- Painless Ulcer
- Erythema
- Mild soreness
- Absence of lesions
Grade II & III Mucositis

<table>
<thead>
<tr>
<th>Grade II</th>
<th>Grade III</th>
</tr>
</thead>
<tbody>
<tr>
<td>Painful erythema and edema</td>
<td>Painful erythema and edema</td>
</tr>
<tr>
<td>Patchy ulcerations and pseudomembrane</td>
<td>Confluent ulcerations and pseudomembrane</td>
</tr>
<tr>
<td>Symptomatic but can eat and swallow modified diet</td>
<td>Bleeding with mild trauma</td>
</tr>
<tr>
<td></td>
<td>Symptomatic and unable to adequately eat or hydrate</td>
</tr>
</tbody>
</table>

Management Grade II and Grade III

- Oral hygiene every 2-4 hours
- Use foam swab if brushing too painful or causes bleeding
- Oral flossing if causes pain, platelet count < 50,000, or neutrophil count < 1,000
- Use mucosa coating agents
- Avoid irritants
- Dentures in mouth for meals only, not to wear if painful
- Supplement nutrition with parenteral and/or enteral support
- Encourage hydration
- Culture suspect areas. Monitor for bacterial, fungal and/or viral infections

Provide oral analgesics, antibiotics, and antifungals as indicated
Grade IV Mucositis

Management of Grade IV

- Continue frequent oral hygiene as tolerated
- No denture wearing at any time
- Aggressive pain management (consider PCA)
- Total parenteral/enteral nutritional support
- Topical and intravenous antibiotic, anti-fungal or anti-viral agents
- Control bleeding as needed
- Prophylactic intubation if in danger of aspiration or respiratory compromise

Resources:
- Oral Care for Patients Undergoing Cancer Treatments
  MGH Nursing Policy W01-23-01
- www.nidcr.nih.gov
- www.mascc.org
- www.cancer.gov

Grade IV
- Severe ulcerations or necroses
- May include spontaneous bleeding
- Requires nutritional support
- May require prophylactic intubation
- May be life threatening

Photos courtesy of
Stephen T. Smits, DMD, Mark Schubert, DDS, MSD
DEVELOPMENT OF EVIDENCE-BASED NURSING CARE GUIDELINES REGARDING ORAL CARE FOR PATIENTS UNDERGOING CANCER TREATMENT

Andrea Hansen, RN, MSN, OCN; Janet Gail Umphlett, RN, OCN; Jeanne Griffin, MSN, APRN, BC, AOCN; Pat Ostler, RN, BSN, AOCN; Esther O’Dette, RN, ASN; Cynthia Moreira, RN, BSN; Mimi Bartholomay, RN, MSN, AOCN, Oncology CNS; Barbara Cashvelly, RN, MSN, AOCN

Massachusetts General Hospital, Boston, MA

BACKGROUND

- Mucositis is the ulceration and inflammation of rapidly dividing cells of the oral mucosa of the oral cavity and gastrointestinal tract
- A frequent and debilitating complication of cancer treatment
- A dose-limiting toxicity that impacts survival
- Leads to treatment delays and dose reductions, compromising the effectiveness of cancer treatment
- Impacts nutrition, daily function, quality of life and patient care costs

THE FIVE PHASES OF MUCOSITIS PATHOPHYSIOLOGY

- Irritation
  - Occurs immediately after the exposure of oral tissue to radiation or chemotherapy
  - Cells throughout the mucosa are injured by reactive oxygen species that are generated from radiation and chemotherapy
- Upregulation and message generation
  - Transcription factors are activated by chemotherapy and radiation
  - These transcription factors and other substances trigger a variety of destructive processes that result in damage and death to epithelial cells
  - Mucosa begins to thin, becomes erythematous and pain develops
- Amplification
  - The amplification and signaling of the process results in an ongoing state of amplification of injury, beneath the mucosal surface, that continues to occur after completion of chemotherapy and radiation
  - Despite all of the cellular changes occurring during these three stages of mucositis, few symptoms are evident
- Ulceration
  - Involves penetration through the epithelium into the submucosa and breakdown of the mucosal barrier
  - Mucosal erosions are exposed causing pain
  - Bacterial colonization occurs increasing the risk of secondary infection
  - Associated with adverse clinical and economic outcomes
- Healing
  - The extracellular matrix releases signals that direct the epithelial cells to divide, migrate and differentiate into healthy new mucosal cells
  - These healthy epithelial cells cover the ulceration and tissue layers start to form

IMPLEMENTATION

- Nursing Education Initiative:
  - Evidence-based guidelines for the prevention and management of mucositis were developed
  - Policy was approved in October 2005, and resides in the MGH Nursing Policy and Procedure Manual
  - Guidelines will be introduced via educational interventions through unit-based in-services this spring
  - Pocket guides illustrating mucositis grading and management are being developed
  - A post test will be administered to staff to determine level of knowledge regarding mucositis prevention and management
- Patient Education Initiative:
  - A patient education brochure was developed to reinforce optimal oral hygiene during cancer treatment
  - Utilized on various oncology units for patients receiving chemotherapy, as a standard component of new patient education

MUCOSITIS RISK FACTORS

- The overall incidence of mucositis is influenced by treatment and patient-related risk factors
  - Treatment related risk factors
    - Chemotherapy
    - Radiation therapy
    - Oral cavity
    - Bone marrow transplantation
    - Severity of immunosuppression
  - Patient related risk factors
    - Decreased salivary function
    - Age
    - Exposure to alcohol and tobacco
    - Diabetes
    - Gustatory
    - Ill fitting dentures
    - Hot, acidic or spicy foods
    - Poor nutrition/Dehydration
    - Decreased renal function

CONCLUSION

- Better understanding of oral care during cancer treatment is crucial to nursing practice
- Understanding the pathophysiology of oral mucositis and awareness of risk factors and consequences associated with oral mucositis, can reduce the clinical and economic implications
- Development of this evidence-based policy by nurses from various practice settings helped to promote continuity of care, improve patient outcomes, and to ensure hospital-wide utilization and support
- Patient education regarding oral care during cancer treatment is crucial for reducing the incidence and severity of mucositis
Get To The Green: The Race Is On!
Achieve 100% Performance on National Hospital Quality Measures (NHQMs)

What Are The Cardiac NHQMs?

**ACUTE MYOCARDIAL INFARCTION**
- Aspirin prescribed at arrival AND discharge
- ACE/ARBs for LVSD at discharge
- Smoking Cessation Counseling
- Beta-blocker at arrival AND discharge
- Thrombolysis within 30 minutes of arrival
- PCI within 90 minutes of arrival
*ST segment elevation without thrombolysis
- Document any contraindications to beta-blockers, aspirin, and both ACEi and ARB

**HEART FAILURE**
- Left ventricular function assessment
- ACE/ARBs for LVSD at discharge
- Smoking Cessation Counseling
- Discharge instructions that include ALL of the following:
  - Diet
  - Activity
  - Weight monitoring
  - Medications
  - Symptoms worsening
  - Follow-up
- Document any contraindications to both ACEi and ARB
- Document LVF assessment, i.e. moderate, severe or EF<40%
- Discharge summary & patient medication list must match

What YOU Can Do To Help

1. Identify Potential HF Patients
   - Review daily HF list

2. Provide Heart Failure Education Packet

3. DOCUMENT Provision of Heart Failure Packet
   - Include sticker in ‘Progress Note’ or ‘Teaching Record’

How Are We Doing?

REWARDS
Care units that score 100% on HF discharge instructions in a quarter will receive a celebratory breakfast, lunch, dinner (all shifts)!

SUGGESTIONS
Include envelope for suggestions here
Please share your ideas to improve the quality of care we provide to our patients
## MGH National Hospital Quality Measures: AMI, HF, PN and Smoking Counseling
(Data current as of 8/1/07)

<table>
<thead>
<tr>
<th>National Hospital Quality Measures</th>
<th>Jan-Dec 06</th>
<th>Jan-Mar 07</th>
<th>Apr-Jun 07</th>
<th>TJC Performance</th>
<th>TJC Website</th>
<th>TJC Website</th>
<th>TJC Website</th>
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<tbody>
<tr>
<td></td>
<td>N Rate</td>
<td>N Rate</td>
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<td>TJC Website</td>
<td>TJC Website</td>
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<tr>
<td><strong>AMI</strong></td>
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<tr>
<td>ASA at arrival</td>
<td>257 99%</td>
<td>40 100%</td>
<td>77 100%</td>
<td>97% 100%</td>
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<tr>
<td>ASA at discharge</td>
<td>544 99%</td>
<td>103 99%</td>
<td>183 100%</td>
<td>97% 100%</td>
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<tr>
<td>ACEI/ARBs for LVSD</td>
<td>159 91%</td>
<td>25 92%</td>
<td>10 100%</td>
<td>87% 100%</td>
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<td>Beta blocker at discharge</td>
<td>752 99%</td>
<td>154 99%</td>
<td>159 99%</td>
<td>98% 100%</td>
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<td>Beta blocker at arrival</td>
<td>219 99%</td>
<td>36 97%</td>
<td>56 96%</td>
<td>94% 100%</td>
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<td>220 93%</td>
<td>53 100%</td>
<td>51 100%</td>
<td>97% 100%</td>
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<tr>
<td>PCI &lt;= 90 minutes</td>
<td>30 69%</td>
<td>14 57%</td>
<td>17 71%</td>
<td>80% 88%</td>
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<td>PCI Median (minutes)</td>
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<td>66</td>
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<td>86</td>
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<td><strong>HF</strong></td>
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<tr>
<td>Assessment of LVSD</td>
<td>983 99%</td>
<td>237 100%</td>
<td>248 99%</td>
<td>93% 99%</td>
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<td>ACEI/ARBs for LVSD</td>
<td>340 79%</td>
<td>69 93%</td>
<td>75 99%</td>
<td>96% 96%</td>
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<td>Discharge instructions</td>
<td>770 88%</td>
<td>159 78%</td>
<td>200 83%</td>
<td>75% 94%</td>
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<tr>
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<td>128 83%</td>
<td>31 100%</td>
<td>28 96%</td>
<td>92% 100%</td>
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<td><strong>PNA</strong></td>
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<td>49 100%</td>
<td>14 100%</td>
<td>58 100%</td>
<td>100% 100%</td>
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<tr>
<td>Pneumo vaccination</td>
<td>362 79%</td>
<td>135 74%</td>
<td>122 72%</td>
<td>75% 93%</td>
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<td>Initial antibiotic &lt;= 4 hrs</td>
<td>336 88%</td>
<td>74 89%</td>
<td>73 93%</td>
<td>79% 92%</td>
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<td>Blood culture timing</td>
<td>303 92%</td>
<td>76 99%</td>
<td>57 93%</td>
<td>90% 97%</td>
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<td>Initial antibiotic selection ICU</td>
<td>215 92%</td>
<td>43 96%</td>
<td>47 96%</td>
<td>88% 96%</td>
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<td>137 71%</td>
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<td>35 100%</td>
<td>88% 100%</td>
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<td>Flu vaccination</td>
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<td>not reported</td>
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<td><strong>SMOKING COUNSELING</strong></td>
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<td>Composite Score (AMI, HF, PNA)</td>
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<td>128 100%</td>
<td>14 99%</td>
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<tr>
<td><strong>All-or-None Bundle</strong></td>
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<td>216 95%</td>
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<td>HF</td>
<td>864 67%</td>
<td>237 82%</td>
<td>268 84%</td>
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<td>563 51%</td>
<td>197 67%</td>
<td>172 73%</td>
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National Hospital Quality Measures:
White 8 Heart Failure Completion of Discharge Instructions
(Documentation Found in Chart Review)

Preliminary data as of 8/1/07

Month

MARCH 2007
APRIL 2007
MAY 2007
JUNE 2007

Percent Compliance

Compliance with Pts Coded with HF
TJC Average = 70%
Hospital-wide Compliance

Compliance with Pts Coded with HF and on the HF list
TJC 90%/4= 94%