MICHIGAN HEALTH AND SAFETY COALITION
HOSPITAL REFERRAL GUIDELINES SURVEY

June 13, 2002

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Section 1: GENERAL INFORMATION

Introduction

The Michigan Health and Safety Coalition recently released the Hospital Referral Guidelines. In late December 2001, Michigan hospitals were sent a copy of the guidelines, along with an announcement, from the Michigan Health & Hospital Association (MHA), a Coalition member. The guidelines are also available on the Coalition's website at www.mihealthandsafety.org. The guidelines include recommendations for staffing, patient volume, data collection and continuous improvement initiatives.

Background

The Coalition's mission is to help improve health care quality in Michigan through cost-effective improvements in patient safety, including reduced medical errors, across all health care settings. The Coalition's hope is that the guidelines will be used to support continuous improvement in the safety and quality of health care in Michigan.

As a first step, the Coalition is conducting a web-based survey of Michigan hospitals to assess where Michigan hospital practices are today compared to the guidelines. The guidelines represent key aspects of care for eight clinical areas. The survey will help the Coalition to identify gaps between the guidelines and actual practice. Survey information will be used by the Coalition to better understand the potential impacts of the guidelines on Michigan hospitals and to help develop implementation approaches that balance the issues of cost, quality and access to care.

Participation in the survey is voluntary, but your participation is strongly encouraged so that the Coalition can gain as complete a picture as possible of Michigan hospitals. We will be respectful of the confidentiality of hospital-specific information and are committed to the principle of providing blinded, summary level information when possible, using hospital-specific identifiers only with hospital permission.

The Coalition thanks you in advance for your time and effort to complete the survey and for participating in this important project.

Hospital Referral Guidelines

The Michigan guidelines focus on Intensive Care Unit Physician Staffing (IPS), care for low birthweight infants and infants with congenital anomalies in Neonatal Intensive Care Units, and the following procedures: abdominal aortic aneurysm repair, carotid endarterectomy surgery, esophagectomy for cancer, open heart surgery, and percutaneous coronary interventions. These areas of care and procedures were selected for guideline development based on evidence of a relationship between particular characteristics of a hospital and patient health outcomes, as well as significant employer interest in useful quality indicators in these areas.

Six Expert Clinical Panels, under the direction of the Coalition, developed the guidelines using a rigorous, facilitated review process that included an assessment of currently available scientific evidence from published, peer-reviewed health services research and expert collaborative consensus opinion. These guidelines are based on the principles of continuous quality improvement and will evolve as new evidence is developed.

Benefits to Hospitals of Participation in the Survey

One of the key benefits of this survey for hospitals is the opportunity to consolidate multiple data collection efforts. The results of this survey will be made available to Michigan health plans. Hospitals that participate in the survey will also receive blinded, aggregate information on how they compare to other similar Michigan hospitals and to the state as a whole. Hospitals of all sizes and from all parts of the state will have a chance to participate in quality/safety workgroups to explore data collection and public reporting as the Coalition's work goes forward.

Access to Hospital Data and Survey Reports

Four levels of access to data have been identified: consumers, health plans, hospitals, and the Coalition's analytical team.

Consumers - the general public, employers, and non-hospital health care providers and clinicians – will be provided high-level aggregated data. Specifically, a one-item summary measure will be provided for IPS; and for the volume-based guidelines, raw volume data and a one-item measure that reflects appropriateness and other structure, process and outcome measures will be made available. The Leapfrog Group will score CPOE and make that consumer measure available also.

Health plans will have access to hospital-specific responses for each item in the survey instrument from all contracted hospitals in the health plan's network that grant approval for the data's release, and others with hospital permission. Making these data available should reduce the need for hospitals to collect and submit the required information separately. Health plans will have the opportunity to use this data to respond to multiple inquiries from purchasers on the performance of their contracted hospitals.

Each hospital will have access to its own responses to each item in the survey. Hospitals that authorize release of their hospital-specific reports will have access to aggregated responses for each item in the survey instrument. Aggregate reports will depict responses from all hospital participants and for respondents sorted by segments such as peer-group and geographic region.

The Coalition's analytical staff will have access to all hospital-specific responses for each item in the survey instrument. These data, and the analyses of them, will help the Coalition identify issues that need to be addressed such as funding and access to care in different geographic regions, before developing guideline implementation strategies. Hospitals will be invited to participate in implementation workgroups to explore implementation issues and recommend next steps to the Coalition.

Prior to the release of data and reports, the algorithms and weights used to score each report will be shared with hospitals. Permission to release the hospital-specific reports and data as detailed above will be sought from each hospital. No hospital-specific data will be shared without permission. Hospitals that elect not to participate in the survey or not to share their data will be denoted in the public report as choosing not to participate.

Relationship to the Leapfrog Group Survey

To minimize the data collection burden on hospitals, the Michigan survey will include not only questions related to the Michigan hospital referral guidelines but also the Leapfrog Group survey questions related to Computerized Physician Order Entry (CPOE). The Leapfrog Group, a purchaser coalition,[1] rolled out a survey in six regions last year in a national effort to gather information from hospitals about their status with regard to the Leapfrog Group's three safety standards.

[1] Information on the Leapfrog Group can be found on their web site at: www.leapfroggroup.org

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Section 2.A: COMPLETING THE SURVEY

Welcome!

The Michigan Health and Safety Coalition Hospital Referral Guidelines Survey is divided into eleven sections. The first section asks you to provide basic information about your hospital. The next ten sections ask questions specifically about your hospital's current practices compared to the guidelines for volume-based procedures, IPS, and CPOE. The last section asks if your hospital is willing to participate in collaborative workgroups focused on issues related to implementation of one or more of the guidelines. Each section follows the same format.

Completing the Survey

Completing this survey will require a number of steps:

1. This survey requires information that you may not have readily available. We recommend that you print a hard copy of this survey. A printable version of the survey is available at the Coalition's website www.mihealthandsafety.org. Once you have had a chance to review the survey, please assign survey completion to others in your organization as appropriate. This might include someone from your quality management area who regularly compiles data about your hospital, as well as representatives from your information technology group or medical staff. All survey responses must then be submitted through the online survey. Each representative from your hospital must use the same security code given to your hospital when accessing the survey online.

2. Your hospital may begin the survey and if necessary, stop before finishing, save answers and return at a later time to complete the survey. **The on-line survey must be completed by May 3, 2002.**

3. To review the Coalition's hospital referral guidelines, visit the Coalition's website at www.mihealthandsafety.org.

4. For the CPOE guideline, you may want to visit the Leapfrog Group web site at www.leapfroggroup.org for more information.

5. To help you better understand the questions, we have defined many of our terms in a glossary. Simply click on any underlined term within the survey to immediately view its definition.

6. Please respond to the survey for your hospital only. If your hospital is part of a multi-hospital health care system, each individual hospital within the system will be invited to complete a separate survey using a unique security code.

7. Your hospital's status on an item should be reported as "in progress" **only** if you would be able to provide written documentation to substantiate this assessment for that item. Examples of documents to support an "in progress" status include strategic plans with clear and defined timelines, approved budgets, leadership workgroups, training programs, and procurement of bids and pricing information.

8. Responses to all questions should assume an annual time period of October 1, 2000 through September 30, 2001 unless otherwise specified.

9. At the end of the survey, your organization's CEO is asked to affirm that the information submitted by his/her authorized agent in response to the survey is accurate.

Additional Questions:

If you have any questions, please call Chris Goeschel of the Michigan Health & Hospital Association (MHA), (517) 323-3443 or by e-mail at cgoeschel@lans.mha.org.

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Section 2.B: THE SURVEY

1. Basic Hospital Information
2. Open Heart Surgery
3. Percutaneous Coronary Intervention
4. Abdominal Aortic Aneurysm Repair
5. Carotid Endarterectomy Surgery
6. Esophagectomy for Cancer
7. Low Birthweight Infants and Infants with Congenital Anomalies in NICUs
8. Intensive Care Unit Physician Staffing (IPS)
9. Computerized Physician Order Entry (CPOE)
10. General Comments on Patient Safety Activities
11. Future Participation in Workgroups

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1. Basic Hospital Information

A. Organization Information

If your hospital is part of a larger healthcare system, you should respond to this survey for your hospital only. Your hospital has been identified based on its separate designation as a Medicare-certified hospital.

Your hospital should reflect the status and information pertaining only to this hospital, as identified. If you are responding on behalf of a multi-hospital system, separate survey responses are required for each hospital based on their separate Medicare certification.

1.	Hospital name	
2.	Street address	
3.	City	
4.	State	
5.	Zip Code	
6.	Main phone number	
7.	Hospital web site address	
8.	Number of licensed medical, surgical, and obstetrics beds	
9.	Number of licensed Intensive Care Unit (ICU) beds	
10.	Number of licensed Neonatal Intensive Care Unit beds	
11.	Is this hospital part of a healthcare system or Integrated Delivery Network (IDN)	
12.	If yes to #11, please enter the name of the healthcare system or IDN	

B. Contact Information

1.	Name of Chief Executive Officer (CEO) of your hospital	
2.	Name of Chief Medical Officer (CMO) of your hospital	
3.	Name of contact person for this survey	
4.	Contact's title	
5.	Contact's phone number	
6.	Contact's e-mail address	

Note to survey vendor: Hospital demographic data may be preloaded. In addition to the above, preloaded data will include hospital peer group, teaching status, region (district council), and Medicare identifier.

2. Open Heart Surgery Guideline

All questions refer to the October 1, 2000 to September 30, 2001 timeframe. An item should be reported as "in progress" only if you are able to provide written documentation to substantiate such an assessment.

A. Volume-based Outcomes	Yes O No O
1. Were open heart surgeries being performed in your hospital as of October 1, 2000?	
2. How many open heart surgeries were performed in your hospital between October 1, 2000 and September 30, 2001?	_____ (If "0", go to next guideline)
B. Appropriateness	Yes O In Progress O No O Go to C1
1. Does your hospital's medical staff have appropriateness criteria for determining the medical necessity of open heart surgeries?	
2. Does your hospital require the medical staff to use the appropriateness criteria for clinical case reviews of open heart surgeries?	O O O
C. Structure, Process, Outcome Measures	Yes O In Progress O No O Go to C2
1. Does your hospital have a risk-adjustment system for open heart surgeries?	
a. What method of risk-adjusting does your hospital use or plan to use?	_____
b. What data sources does your hospital use or plan to use?	_____
c. Does your hospital collect risk-adjusted **mortality**?	O O O
d. Does your hospital collect risk-adjusted **morbidity** indicators?	O O O
2. Does your hospital and/or its cardiac surgeons submit clinical data related to open heart surgeries to the Society of Thoracic Surgery Database?	O Skip C2a O Skip C2a O
a. Is your hospital and/or its cardiac surgeons willing to submit clinical data related to open heart surgeries to the Society of Thoracic Surgery Database?	O O

Comment Box

If desired, please provide any additional comments on this section of the survey in the space provided.

3. Percutaneous Coronary Intervention Guideline

All questions refer to the October 1, 2000 to September 30, 2001 timeframe. An item should be reported as "in progress" only if you are able to provide written documentation to substantiate such an assessment.

A. Volume-based Outcomes	
1. Were percutaneous coronary interventions being performed in your hospital as of October 1, 2000?	Yes O No O
2. How many percutaneous coronary interventions were performed in your hospital between October 1, 2000 and September 30, 2001?	_____ (If "0", go to next guideline)
3. The American College of Cardiology recommends that physician/operators perform at least 75 percutaneous coronary interventions per year. Does your hospital collect data regarding total volume of interventions performed by physician/operators (at your hospital and elsewhere) as part of its credentialing process?	Yes O In Progress O No O
B. Appropriateness	
1. Does your hospital's medical staff have appropriateness criteria for determining the medical necessity of percutaneous coronary interventions?	Yes O In Progress O No O Go to C1
2. Does your hospital require the medical staff to use the appropriateness criteria for clinical case reviews of percutaneous coronary interventions?	O O O
C. Structure, Process, Outcome Measures	
1. Does your hospital have a risk-adjustment system for percutaneous coronary interventions?	Yes O In Progress O No O Go to C2
a. What method of risk-adjusting does your hospital use or plan to use?	_____
b. What data sources does your hospital use or plan to use?	_____
c. Does your hospital collect hospital-specific risk-adjusted **mortality**?	O O O
d. Does your hospital collect physician-specific risk-adjusted **mortality**?	O O O
e. Does your hospital collect hospital-specific risk-adjusted **morbidity** indicators?	O O O
f. Does your hospital collect physician-specific risk-adjusted **morbidity** indicators?	O O O
2. Does your hospital and/or its physician/operators submit clinical data related to percutaneous coronary interventions to a comprehensive statewide database?	O Skip C2a O Skip C2a O
a. Is your hospital or its physician/operators willing to submit clinical data related to percutaneous coronary interventions to a comprehensive statewide database?	O O

Comment Box

If desired, please provide any additional comments on this section of the survey in the space provided.

4. Abdominal Aortic Aneurysm Repair Guideline

All questions refer to the October 1, 2000 to September 30, 2001 timeframe. An item should be reported as "in progress" only if you are able to provide written documentation to substantiate such an assessment.

A. Volume-based Outcomes

	Yes	No
1. Were open abdominal aortic aneurysm repairs being performed in your hospital as of October 1, 2000?	O	O
2. Were closed abdominal aortic aneurysm repairs being performed in your hospital as of October 1, 2000?	O	O
3. How many open abdominal aortic aneurysm repairs were performed in your hospital between October 1, 2000 and September 30, 2001?	_____	
4. How many closed abdominal aortic aneurysm repairs were performed in your hospital between October 1, 2000 and September 30, 2001?	_____	

Note to vendor – if respondent answers "0" to both A3 and A4 they skip to the next guideline. If they answer "0" to one but not the other – skip pattern specified below applies. If respondent answers "0" to A3 – they do not answer B1, B3, C1, C1a, C1b, C1c, C1d, C3 and C3a. If respondent answers "0" to A4 – they do not answer B2, B4, C2, C2a, C2b, C2d, C4 and C4a.

B. Appropriateness

	Yes	In Progress	No
1. Does your hospital's medical staff have appropriateness criteria for determining the medical necessity of open abdominal aortic aneurysm repairs?	O	O	O Skip B3
2. Does your hospital's medical staff have appropriateness criteria for determining the medical necessity of closed abdominal aortic aneurysm repairs?	O	O	O Skip B4
3. Does your hospital require the medical staff to use the appropriateness criteria for clinical case reviews of open abdominal aortic aneurysm repairs?	O	O	O
4. Does your hospital require the medical staff to use the appropriateness criteria for clinical case reviews of closed abdominal aortic aneurysm repairs?	O	O	O

Abdominal Aortic Aneurysm Repair Guideline (cont.)

C. Structure, Process, Outcome Measures	Yes	In Progress	No
1. Does your hospital have a risk-adjustment system for open abdominal aortic aneurysm repairs?	O	O	O If the answer to A4 is >0, go to C2, otherwise, go to C3
a. What method of risk-adjusting does your hospital use or plan to use for open abdominal aortic aneurysm repairs?	_____		
b. What data sources does your hospital use or plan to use for risk adjusting related to open abdominal aortic aneurysm repairs?	_____		
c. Does your hospital collect risk-adjusted **mortality** for open abdominal aortic aneurysm repairs?	O	O	O
d. Does your hospital collect risk-adjusted **morbidity** indicators for open abdominal aortic aneurysm repairs?	O	O	O
2. Does your hospital have a risk-adjustment system for closed abdominal aortic aneurysm repairs?	O	O	O Skip to C3
a. What method of risk-adjusting does your hospital use or plan to use for closed abdominal aortic aneurysm repairs?	_____		
b. What data sources does your hospital use or plan to use for risk adjusting related to closed abdominal aortic aneurysm repairs?	_____		
c. Does your hospital collect risk-adjusted **mortality** for closed abdominal aortic aneurysm repairs?	O	O	O
d. Does your hospital collect risk-adjusted **morbidity** indicators for closed abdominal aortic aneurysm repairs?	O	O	O
3. Does your hospital and/or its vascular surgeons submit clinical data related to open abdominal aortic aneurysm repairs to a comprehensive statewide database?	O Go to C4	O Go to C4	O
a. Is your hospital and/or its vascular surgeons willing to submit clinical data related to open abdominal aortic aneurysm repairs to a comprehensive statewide database?	O		O
4. Does your hospital and/or its vascular surgeons submit clinical data related to closed abdominal aortic aneurysm repairs to a comprehensive statewide database?	O Skip C4a	O Skip C4a	O
a. Is your hospital and/or its vascular surgeons willing to submit clinical data related to closed abdominal aortic aneurysm repairs to a comprehensive statewide database?	O		O

Comment Box

If desired, please provide any additional comments on this section of the survey in the space provided.

5. Carotid Endarterectomy Guideline

All questions refer to the October 1, 2000 to September 30, 2001 timeframe. An item should be reported as "in progress" only if you are able to provide written documentation to substantiate such an assessment.

A. Volume-based Outcomes

1.	Were open carotid endarterectomy surgeries being performed in your hospital as of October 1, 2000?	Yes O No O
2.	Were closed carotid endarterectomy procedures being performed in your hospital as of October 1, 2000?	Yes O No O
3.	How many open carotid endarterectomy surgeries were performed in your hospital between October 1, 2000 and September 30, 2001?	_____
4.	How many closed carotid endarterectomy procedures were performed in your hospital between October 1, 2000 and September 30, 2001?	_____
5.	Did your hospital perform **fewer than** 50 open or closed (combined total) surgeries between October 1, 2000 and September 30, 2001?	Yes O No O Go to B1
6.	What was your hospital's combined morbidity and mortality rate for open and closed surgeries for the past two years (October 1, 1999 to September 30, 2001)?	_____

Note to vendor – if respondent answers "0" to both A3 and A4 they skip to the next guideline. If they answer "0" to one but not the other – skip pattern specified below applies. If respondent answers "0" to A3 – they do not answer B1, B3, C1, C1a, C1b, C1c, C1d, C3 and C3a. If respondent answers "0" to A4 – they do not answer B2, B4, C2, C2a, C2b, C2d, C4 and C4a.

B. Appropriateness

		Yes	In Progress	No
1.	Does your hospital's medical staff have appropriateness criteria for determining the medical necessity of open carotid endarterectomy surgeries?	O	O	O Skip B3
2.	Does your hospital's medical staff have appropriateness criteria for determining the medical necessity of closed carotid endarterectomy procedures?	O	O	O Skip B4
3.	Does your hospital require the medical staff to use the appropriateness criteria for clinical case reviews of open carotid endarterectomy surgeries?	O	O	O
4.	Does your hospital require the medical staff to use the appropriateness criteria for clinical case reviews of closed carotid endarterectomy procedures?	O	O	O

Carotid Endarterectomy Surgery Guideline (cont.)

C. Structure, Process, Outcome Measures	Yes	In Progress	No
1. Does your hospital have a risk-adjustment system for open carotid endarterectomy surgeries?	O	O	O If the answer to A4 >0, go to C2, otherwise, go to C3
a. What method of risk-adjusting does your hospital use or plan to use for open carotid endarterectomy surgeries?	_____		
b. What data sources does your hospital use or plan to use for risk adjusting related to open carotid endarterectomy surgeries?	_____		
c. Does your hospital collect risk-adjusted **mortality** for open carotid endarterectomy surgeries?	O	O	O
d. Does your hospital collect risk-adjusted **morbidity** indicators for open carotid endarterectomy surgeries?	O	O	O
2. Does your hospital have a risk-adjustment system for closed carotid endarterectomy procedures?	O	O	O Go to C3
a. What method of risk-adjusting does your hospital use or plan to use for closed carotid endarterectomy procedures?	_____		
b. What data sources does your hospital use or plan to use for risk adjusting related to closed carotid endarterectomy procedures?	_____		
c. Does your hospital collect risk-adjusted **mortality** for closed carotid endarterectomy procedures?	O	O	O
d. Does your hospital collect risk-adjusted **morbidity** indicators for closed carotid endarterectomy procedures?	O	O	O
3. Does your hospital and/or its vascular surgeons submit clinical data related to open carotid endarterectomy surgeries to a comprehensive statewide database?	O Go to C4	O Go to C4	O
a. Is your hospital and/or its vascular surgeons willing to submit clinical data related to open carotid endarterectomy surgeries to a comprehensive statewide database?	O		O
4. Does your hospital and/or its vascular surgeons submit clinical data related to closed carotid endarterectomy procedures to a comprehensive statewide database?	O Skip C4a	O Skip C4a	O
a. Is your hospital and/or its vascular surgeons willing to submit clinical data related to closed carotid endarterectomy procedures to a comprehensive statewide database?	O		O

Comment Box

If desired, please provide any additional comments on this section of the survey in the space provided.

6. Esophagectomy for Cancer Guideline

All questions refer to the October 1, 2000 to September 30, 2001 timeframe. An item should be reported as "in progress" only if you are able to provide written documentation to substantiate such an assessment.

A. Volume-based Outcomes	
1. Were esophagectomies for cancer being performed in your hospital as of October 1, 2000?	Yes O No O
2. How many esophagectomies for cancer were performed in your hospital between October 1, 2000 and September 30, 2001?	_____ (If "0", go to next guideline)
B. Appropriateness	Yes / In Progress / No
1. Does your hospital's medical staff have appropriateness criteria for determining the medical necessity of esophagectomies for cancer?	O / O / O Go to C1
2. Does your hospital require the medical staff to use the appropriateness criteria for clinical case reviews of esophagectomies for cancer?	O / O / O
C. Structure, Process, Outcome Measures	Yes / In Progress / No
1. Does your hospital have a risk-adjustment system for esophagectomies for cancer?	O / O / O Go to C2
a. What method of risk-adjusting does your hospital use or plan to use?	_____
b. What data sources does your hospital use or plan to use?	_____
c. Does your hospital collect risk-adjusted **mortality**?	O / O / O
d. Does your hospital collect risk-adjusted **morbidity** indicators?	O / O / O
2. Does your hospital and/or its surgeons submit clinical data related to esophagectomies for cancer to the Society for Thoracic Surgery Database?	O / O / O Go to C3 / Go to C3
a. Is your hospital and/or its surgeons willing to submit clinical data related to esophagectomies for cancer to the Society for Thoracic Surgery Database?	O / O
3. Are all of the surgeons who perform esophagectomies for cancer in your hospital certified by the American Board of Thoracic Surgery to perform this procedure?	O / O / O
4. Does your hospital have a multidisciplinary tumor board that meets on a regular basis?	O / O / O
5. Does your hospital provide post-operative care that includes chemotherapy?	O / O / O
6. Does your hospital provide post-operative care that includes radiation therapy?	O / O / O

Comment Box

If desired, please provide any additional comments on this section of the survey in the space provided.

7. Low Birthweight Infants and Infants with Congenital Anomalies Guidelines

All questions refer to the October 1, 2000 to September 30, 2001 timeframe. An item should be reported as "in progress" only if you are able to provide written documentation to substantiate such an assessment.

A. Volume-based Outcomes	
1. Does your hospital have a licensed neonatal intensive care unit?	Yes O No O Go to next guideline
2. Was your licensed neonatal intensive care unit operational as of October 1, 2000?	Yes O No O
3. How many low birthweight infants (<1500 grams) were admitted to your hospital's licensed neonatal intensive care unit between October 1, 2000 and September 30, 2001?	_____
B. Appropriateness	Yes / In Progress / No
1. Does your hospital's medical staff have appropriateness criteria for determining the medical necessity of all admissions to the neonatal intensive care unit?	O O O Go to C1
2. Does the hospital require the medical staff to use the appropriateness criteria for clinical case reviews of all admissions to the neonatal intensive care unit?	O O O
C. Structure, Process, Outcome Measures	Yes / In Progress / No
This portion of the survey applies to low birthweight infants	O O O Go to C2
1. Does your hospital have a risk-adjustment system for low birthweight infants (<1500 grams)?	
a. What method of risk-adjusting does your hospital use or plan to use?	_____
b. What data sources does your hospital use or plan to use?	_____
c. Does your hospital collect risk-adjusted mortality?	O O O
d. Does your hospital collect risk-adjusted morbidity indicators?	O O O
2. Does your hospital and/or its neonatologists submit clinical data for low birthweight Infants (<1500 grams) admitted to the neonatal intensive care unit to the Vermont Oxford Network Database?	O O O Go to C3 Go to C3
a. Is your hospital and/or its neonatologists willing to submit clinical data for low birthweight infants (<1500 grams) admitted to the neonatal intensive care unit to the Vermont Oxford Network Database?	O O
3. Does your hospital have a board-certified or board-eligible neonatologist who directs the neonatal intensive care unit?	O O O
4. Does your hospital provide 24-hour in-house coverage by a board-certified or board-eligible neonatologist qualified in the intensive care of newborn infants?	O O O
5. Does your hospital provide 24-hour in-house coverage by a nurse practitioner or physician extender certified in the intensive care of newborn infants?	O O O
6. Does your hospital have on-site physician backup (board-certified or board-eligible neonatologist in the neonatal intensive care unit) to the nurse practitioner or physician extender available within 30 minutes?	O O O

C. Structure, Process, Outcome Measures (continued)			
This portion of the survey applies to Infants with Congenital Anomalies	Yes	In Progress	No
7. Does your hospital have a risk-adjustment system for infants with congenital anomalies?	O	O	O Go to C8
a. What method of risk-adjusting does your hospital use or plan to use?	_____		
b. What data sources does your hospital use or plan to use?	_____		
c. Does your hospital collect risk-adjusted mortality?	O	O	O
d. Does your hospital collect risk-adjusted morbidity indicators?	O	O	O
8. Does your hospital and/or its neonatologists submit clinical data for infants with congenital anomalies admitted to the neonatal intensive care unit to the Vermont Oxford Network Database?	O Go to C9	O Go to C9	O
a. Is your hospital and/or its neonatologists willing to submit clinical data for infants with congenital anomalies admitted to the neonatal intensive care unit to the Vermont Oxford Network Database?	O		O
9. Does your hospital have diagnostic radiology services?	O	O	O
10. Does your hospital have diagnostic ultrasound?	O	O	O
11. Does your hospital have MRI capabilities?	O	O	O
12. Does your hospital have skilled medical interpretation for diagnostic radiology, diagnostic ultrasound, or MRI capabilities readily available that is appropriate for infants with congenital anomalies?	O	O	O
13. Does your hospital have established networks for rapid referral to medical subspecialists?	O	O	O
14. Does your hospital have established networks for rapid referral to surgical subspecialists?	O	O	O
15. Does your hospital have established networks for rapid referral to pediatric subspecialists?	O	O	O

Comment Box

If desired, please provide any additional comments on this section of the survey in the space provided.

8. Intensive Care Unit Physician Staffing (IPS) Guideline

All questions refer to the October 1, 2000 to September 30, 2001 timeframe. An item should be reported as "in progress" only if you are able to provide written documentation to substantiate such an assessment.

A. General Relevance	
1. How many adult intensive care units does your hospital have?	_____ [if "0" go to next guideline]

B. Structure, Process, Outcome Measures	
Please answer the following questions for each of your hospital's adult intensive care units. Please begin by identifying the type of intensive care unit (ICU) you are addressing. Please repeat this series of questions for each of your hospital's adult intensive care units. Note to survey vendor: This section needs to be set up to allow hospitals to answer responses for all their adult ICUs (up to 15 per hospital).	**1. ICU** **Medical/Surgical (specify)** _____ **Medical (specify)** _____ **Surgical (specify)** _____ **Other (specify)** _____
	Yes / In Progress / No
1. Is this ICU "closed" in that it is managed by and clinical care is directed by a board-certified or board-eligible intensivist?	O / O* / O Skip to the comment box
a. Does this ICU encourage concurrent care delivered by the primary medical or surgical attending physician?	O / O* / O
b. Does this ICU require that admission and discharge criteria are monitored by the intensivist physician?	O / O* / O
c. Does this ICU require that implementation of care protocols be monitored by the intensivist physician?	O / O* / O
2. Does this ICU require that the intensivist physician be present during daytime hours (8am to 5pm) without conflicting responsibilities?	O / O* / O
3. Does this ICU require that during non-daytime hours (5pm to 8am), the intensivist be available immediately, i.e., returns 95% of ICU calls and pages within 5 minutes?	O / O* / O
4. When the intensivist isn't available, does this ICU require that an appropriately qualified physician or physician extender be physically present in the ICU within 5 minutes 95% of the time?	O / O* / O
	* Only select "in progress" if you can provide documentation (should you be asked) that supports the "in progress" status for this ICU (e.g. a board-approved budget or strategic plan for increasing access to intensivist care, a system to track the actual number of hours ICU care is managed and directed by an intensivist, the percent of time on-call intensivists return pages to the ICU within five minutes, and the use of appropriately qualified physician extenders).

IPS Guideline (cont.)

Comment Box

If desired, please provide any additional comments on this section of the survey in the space provided. If various aspects of ICU care are conducted via telemedicine, we would appreciate learning more about this service.

9. Computerized Physician Order Entry (CPOE)

The Leapfrog Group CPOE standard:

Hospitals that fulfill this standard will:

1. Require physicians to enter hospital medication orders via a computer system that is linked to prescribing error prevention software
2. Demonstrate via a test (now under development by the Institute for Safe Medication Practices and First Consulting Group: (http://www/leapfroggroup.org/fcg.pdf) that their inpatient CPOE system can intercept at least 50% of common serious prescribing errors; and
3. Require documented acknowledgement by the prescribing physician of the interception prior to any override.

Please note, the word "physician" used throughout this section refers to all clinicians authorized to order pharmaceuticals or other hospital ancillary services for patients.

Additional Information about the Standard

Fact Sheet: http://www.leapfroggroup.org/FactSheets/CPOE_FactSheet.pdf
Bibliography: http://www.leapfroggroup.org/biblios/bibliography1.htm

	Yes	No
1. Does your hospital have a functioning CPOE system in at least one part of the hospital?	O	O
2. Does your hospital require all physicians to enter hospital medication orders via a computer system linked to prescribing error prevention software?	O	O
3. Does your hospital's CPOE system require documented acknowledgement by the prescribing physician of the interception of potentially serious prescribing errors prior to any override?	O	O
4. What percent of your hospital's total medication orders are entered by physicians via a computer system linked to prescribing error prevention software?	_____	

If you answered "No" to question #1 or less than 75% to question #4, please answer questions #5-10 below as a means of sharing the interim steps your hospital may be undertaking on its way toward meeting the CPOE standard.

5. If your hospital does not have a CPOE system installed that meets the Leapfrog CPOE standard, please check the box at right that most closely indicates your current stage in CPOE planning and implementation:	O	Planning for CPOE
	O	Currently selecting CPOE system (at a minimum, RFP has been written)
	O	Currently implementing a CPOE system
	O	None of the above

	Yes	No
6. Do you have a written strategy for implementing CPOE?	O	O
7. Have you defined a timeline and launched a CPOE implementation project?	O	O
8. What is the date by which your hospital commits to meet fully the Leapfrog CPOE standard?	_____	
9. Has your hospital board approved a dedicated budget for CPOE for 2001-2002 fiscal years?	O	O
10. Do you have a physician sponsor who leads your CPOE initiative?	O	O

Comment Box

If desired, please provide any additional comments on this section of the survey in the space provided.

10. General Comments on Patient Safety Activities

What additional activities has your hospital implemented to promote improvement in patient safety? Please name (provide only the titles) of your hospital's initiatives.

11. Future Participation

a. Hospital Workgroups The Coalition may form workgroups to assess various issues related to implementation of the hospital referral guidelines such as access to care, costs of implementation, and funding. Is your hospital willing to participate in one or more workgroups?	Yes O	No O Go to Statement of Accuracy
b. If so, for which guideline or guidelines are you most interested in participating:	Check as many categories as interested	
• Open Heart Surgery	O	
• Percutaneous Coronary Intervention	O	
• Abdominal Aortic Aneurysm Repair	O	
• Carotid Endarterectomy Surgery	O	
• Esophagectomy for Cancer	O	
• Low Birthweight Infants	O	
• Infants with Congenital Anomalies	O	
• Intensive Care Unit Physician Staffing (IPS)	O	
• Small/Rural/Critical Access Hospitals	O	
If you answered "yes", please identify the person at your hospital the Coalition should contact for follow up.	Name_____ Phone_____ Email_____	

Statement of Accuracy

These statements pertaining to the Michigan Health and Safety Hospital Referral Guidelines for IPS staffing and selected volume-based procedures, and the Leapfrog requirements for CPOE at our hospital are accurate and reflect the current normal operating circumstances at our hospital, and I am authorized to make these statements on behalf of our hospital. We understand that the Michigan Health and Safety Coalition and/or the Leapfrog Group may make this information public and they reserve the right to omit or disclaim information that is not current.

Affirmed by the Hospital's Chief Executive Officer, _____ (name), on _____(mm/day/year).

Section 3: GLOSSARY OF TERMS

Admission and Discharge Criteria

In the case of the ICU, the term “admission and discharge criteria” refers to the indicators, generally physiological parameters, used by an intensivist or other physician and clinical staff to determine the appropriateness of admitting or discharging patients.

Adult Intensive Care Unit

The organizational setting where professional and supportive services are concentrated for the purpose of providing continuous health services to critically ill patients with life-threatening conditions. (JCAHO Lexicon 1998). In this case, only consider ICUs that routinely admit patients 18 years of age or older, which would exclude all pediatric and neonatal ICUs.

American Board of Thoracic Surgery (ABTS)

An active member of the American Board of Medical Specialties. The Board also functions in close cooperation with the Residency Review Committee for Thoracic Surgery, and through it, with the Accreditation Council for Graduate Medical Education and the Council for Medical Affairs (CFMA). The Board also maintains close liaison with the Thoracic Surgery Directors Association.

The primary purpose and most essential function of the Board is to protect the public by establishing and maintaining high standards in thoracic surgery. To achieve these objectives, the Board has established qualifications for examination and procedures for certification and recertification. Its requirements and procedures are reviewed regularly and modified as necessary.

Board certification in a medical specialty is evidence that a physician's qualifications for specialty practice are recognized by his or her peers. It is not intended to define the requirements for membership on hospital staffs, to gain special recognition or privileges for its Diplomates, to define the scope of specialty practice, or to state who may or may not engage in the practice of the specialty. Specialty certification of a physician does not relieve a hospital's governing body from responsibility in determining the hospital privileges of such specialist.

American College of Cardiology (ACC)

A professional society of over 25,000 cardiovascular physicians and scientists from around the world that support ACC's mission "to foster optimal cardiovascular care and disease prevention through professional education, promotion of research, leadership in the development of standards and guidelines and the formulation of health care policy."

Membership in ACC is open only to those physicians and scientists who meet specific educational and or certification criteria and have high ethical standards as determined by their peers. Members who are both board certified in internal medicine and cardiovascular disease by the American Board of Internal Medicine and devote 75% of their time to the practice of cardiology are eligible for the most prestigious category of Fellow of the American College of Cardiology.

Ancillary (non-physician) Staff

Staff other than physicians and nurses who provide patient care services. Examples of ancillary services include diagnostic imaging, pharmacy, laboratory and therapy services. Ancillary staff are distinguished from support staff by the relationship of their activities to the patient. Support staff activities provide infrastructure support. Examples of support staff include central supply, security, materials management, food service, housekeeping and laundry. (JCAHO Lexicon 1998).

Appropriately Qualified Physician

For the purposes of this survey, an appropriately qualified physician is defined as a physician who is certified, or eligible for certification, in critical care medicine. House officer physicians (intern, resident, or fellow) should be supervised by an intensivist who is board-certified or board-eligible in critical care medicine.

Appropriateness Criteria

Indicators that reflect the degree to which the care and services provided are relevant to an individual's clinical need, given the current state of knowledge. (http://www.jcaho.org/standard/disease_fr_std.html).

Board-certified or Board-eligible

The American Board of Medical Specialties (ABMS) is the umbrella organization for the 24 approved medical specialty boards in the United States. Established in 1933, the ABMS serves to coordinate the activities of its Member Boards and to provide information to the public, the government, the profession and its Members concerning issues involving specialization and certification in medicine. The mission of the ABMS is to maintain and improve the quality of medical care in the United States by assisting the Member Boards in their efforts to develop and utilize professional and educational standards for the evaluation and certification of physician specialists.

The governing body of each Member Board is comprised of specialists qualified in the specialty represented by the board. The individual Member Boards evaluate physician candidates who voluntarily seek certification by a Member Board of the ABMS. To accomplish this function, the Member Boards determine whether candidates have received appropriate preparation in approved residency training programs in accordance with established educational standards, evaluate candidates with comprehensive examinations, and certify those candidates who have satisfied the board requirements.

What does it mean for a doctor to be board certified? A board certified physician has completed an approved educational training program and an evaluation process including an examination designed to assess the knowledge, skills and experience necessary to provide quality patient care in that specialty.

What does it mean if a doctor states he/she is "board eligible"? There could be a variety of meanings and you should contact the specialty board directly to verify their status. Most of the boards have not used this term for twenty years because of the variety of interpretations and the tendency of some individuals to call themselves "board eligible" indefinitely. [You can read and/or download the ABMS policy statement on "board eligible."]

American Board of Medical Specialties Statement on "Board Eligible"

Because of continuing confusion about the term "board eligible", the American Board of Medical Specialties (ABMS) wishes to reiterate its position about that term. The specific term "board eligible" has been given such diverse meanings by different agencies that it has lost its usefulness as an indicator of a physician's progress toward certification by a specialty board. Furthermore, because some candidates have used the term year after year while making no perceptible progress toward certification, it has sometimes been accepted improperly as a permanent alternative to certification. The requirements for admission to the certification process change from time to time, making the term "board eligible" equally susceptible to changes in meaning. For these reasons, the ABMS recommends to its Member Boards that the use of the term "board eligible" be disavowed. Instead, the Boards are urged to respond to inquiries by stating an individual's precise position in the certifying process.

Care Protocols

The term “care protocols” refers to a variety of tools used by clinicians and others that are designed to improve the quality of patient care by aiding clinical decision making. It may refer to the use of standing orders, critical pathways, practice guidelines and other documents that identify an agreed upon and evidence-based general course of care expected for a particular group of patients.

Clinical practice guidelines describe the processes used to evaluate and treat a patient having a specific diagnosis, condition, or symptom. Clinical practice guidelines are found in the literature under many names – practice parameters, practice guidelines, patient care protocols, standards of practice, clinical pathways or highways, care maps, and other descriptive names. “Guidelines” should be evidence-based, authoritative, efficacious and effective within the targeted patient populations. (http://www.jcaho.org/standard/disease_fr_std.html).

Chemotherapy

Chemotherapy refers to drugs that are used to kill microorganisms (bacteria, viruses, fungi) and cancer cells. Most commonly the term is used to refer to "cancer-fighting" drugs. (MEDLINEplus Encyclopedia http://www.nlm.nih.gov/medlineplus/ency/article/002324.htm).

The treatment of disease by means of chemicals that have a specific toxic effect upon the disease producing microorganisms. (Medline Plus Health Information).

Clinical Case Review

Typically, this activity involves periodic and regularly scheduled concurrent and/or retrospective reviews of particular patient cases and records by a designated multidisciplinary group within a given hospital.

Clinical record is the account, compiled by health care professionals, of an individual’s history, present illness, findings on examination, details of care and services, and notes on progress. (http://www.jcaho.org/standard/disease_fr_std.html).

Closed Abdominal Aortic Aneurysm Repair

Procedures, other than open surgical repair, used to treat abdominal aortic aneurysms including all types of endovascular approaches. (Michigan Health and Safety Coalition Expert Clinical Panel on Vascular Surgery, 2001). Procedure code equals 39.71 and diagnosis codes equal 441.02, 441.03, 441.3-441.9 or 444.0.

Closed Carotid Endarterectomy Procedures

Procedures, other than open surgical repair, used to treat carotid artery disease including endarterectomies, angioplasties, and insertion of stents (Michigan Health and Safety Coalition Expert Clinical Panel on Vascular Surgery, 2001). There are no codes specific to closed carotid endarterectomy procedures.

Combined Morbidity and Mortality Rate

As related to performance of carotid endarterectomy, morbidity is defined as stroke; any neurological deficit not present at the time of admission. The combined morbidity and mortality rate is 1) the total number of patients who underwent open carotid endarterectomy surgery OR a closed carotid endarterectomy procedure and who experienced death or stroke 2) divided by the total number of patients who underwent open carotid endarterectomy surgery OR a closed carotid endarterectomy procedure. (Michigan Health and Safety Coalition Expert Clinical Panel on Vascular Surgery, 2001). Please calculate this rate using data from the past two years: October 1, 1999 to September 30, 2001.

Comprehensive Statewide Database

An organized, comprehensive collection of data elements (variables) and their values (http://www.jcaho.org/perfmeas/glossry.html). The collected data needs to be in an analyzable format that documents the structures, processes, and outcomes of care for a particular patient population within a state.

Databases should facilitate performance improvement in health care organizations through the collection and dissemination of process and/or outcome measures of performance. Measurement systems must be able to generate internal comparisons of organizational performance over time, and external comparisons of performance among participating organization at comparable times. (http://www.jcaho.org/perrmeas/coremeas/cm_gloss.html).

Concurrent Care

In this situation, concurrent care refers to the situation in an Intensive Care Unit (ICU) where the intensivist works with the primary medical attending and/or primary surgical attending to develop, monitor, and evaluate the patient's plan of care and responses to that plan of care. (Michigan Health and Safety Coalition, Intensive Care Unit Physician Staffing Expert Clinical Panel, 2001).

Conflicting Responsibilities

With respect to the intensivist, providing care to Intensive Care Unit (ICU) patients without "conflicting responsibilities", this term means that the intensivist will not be away from the hospital or holding clinic elsewhere in the hospital. It does not, however, preclude the intensivist's ability to evaluate patients elsewhere in the hospital for the appropriateness of admission to the ICU or to provide suggestions for

stabilizing patients considered for ICU admission in order to avoid a potentially unnecessary ICU admission. (Michigan Health and Safety Coalition, Intensive Care Unit Physician Staffing Expert Clinical Panel, 2001).

Data Sources

The primary source document(s) used for data collection and may include administrative/billing data, clinical reviews, medical records, patient surveys, provider data and registry/log data. (http://www.jcaho.org/standard/disease_fr_std.html).

The materials, items, or facts on which hospital performance is assessed and inferences are based.

Diagnostic Radiology

The subspecialty concerned with or aiding in diagnosis using radiology. (American College of Radiology).

Diagnostic Ultrasound

Also called ultrasound scanning or sonography, diagnostic ultrasound is a method of obtaining images from inside the human body through the use of high frequency sound waves and using them to aid in diagnosis. The sound wave's echoes are recorded and displayed as a real-time, visual image. No radiation is involved in ultrasound imaging. Because US images are captured in real time, they can show movement of internal tissues and organs and enable physicians to see blood flow. This can help to diagnose a variety of conditions and to assess damage caused by illness.

An ultrasound creates images that allow various organs in the body to be examined. The ultrasound machine sends out high-frequency sound waves, which reflect off body structures to create a picture. There is no ionizing radiation exposure with this test. (MEDLINEplus Encyclopedia http://www.nlm.nih.gov/medlineplus/ency/article/003336.htm).

Esophagectomy for Cancer

Surgical removal of the esophagus due to cancer. Principle diagnosis 150.0 - 151.0, 197.8, 230.1, or 235.5 and procedure codes equals 42.40 - 42.59, or 42.61 - 42.69 or 43.99.

Established Networks

With respect to care provided to infants born with major congenital anomalies, having an "established network" means that a hospital has existing agreements with medical, surgical, and pediatric subspecialists to provide care that is not otherwise available and is appropriate for the infant's particular anomaly.

FCCS Certified

Fundamental Critical Care Support Certification (FCCS*)* – Documentation of successful completion of a 2 day comprehensive course addressing fundamental management principals for the first 24 hours of critical care. The course is intended to better prepare the non-intensivist for management of the critically ill patient until transfer or appropriate critical care consultation can be arranged. In addition, the certification is intended to:

- assist the non-intensivist in dealing with sudden deterioration of the critically ill patient;
- prepare house staff for ICU coverage; and
- prepare nurses to deal with acute deterioration in the critically ill patient.

(Society of Critical Care Medicine).

ICU

Intensive Care Unit – a service area of a hospital established to provide continuous intensive care to critically ill patients. Does not include transitional or step-down units.

In Progress

The term “in progress” means that the hospital is making documentable changes toward addressing the recommendations contained in a guideline. In the case of IPS, a hospital should only mark the “in progress” status if they can provide documentation (should they be asked) that supports the “in progress” status of a particular ICU. Examples of criteria to assess "in progress" include a board-approved budget or strategic plan for increasing access to intensivist care, a system to track actual number of hours ICU care is managed and directed by an intensivist, the percent of time on-call intensivists return pages to the ICU within five minutes, and the use of appropriately qualified physician extenders.

Infants with Congenital Anomalies

This is a diverse group of infants who are born with major congenital anomalies and require admission to the Neonatal Intensive Care Unit (NICU). Diagnostic codes include: 741.XX, 742.0X, 742.2-742.59, 742.8, 742.9, 745.XX, 746-746.85, 747.1X-747.9, 748, 748.2-748.8X, 750.16, 750.3, 750.4, 750.6, 751.XX, 752.7, 753.1X, 753.3, 753.6, 756.4, 756.51, 756.55, 756.59, 756.6, 756.7X, 756.89, or 756.9. (Leapfrog).

Intensive Care Unit

Organizational setting where professional and supportive services are concentrated for the purpose of providing continuous health services to critically ill patients with life-threatening conditions. (JCAHO Lexicon 1998).

Administrative management of an ICU by an intensivist may include activities related to budget, staffing, and selection of care protocols to be used within the ICU. Administrative management does not necessarily imply that the intensivist is engaging in direction of clinical care in the ICU.

Direction of clinical care within an ICU by an intensivist means that the intensivist monitors use of admission and discharge criteria, implementation of care protocols, and supervision of all house staff and physician extenders. Direction of clinical care does not necessarily imply that the intensivist is engaging in administrative management of the ICU.

Intensivist Physician

An intensivist is a physician with subspecialty training, or equivalent qualifications, in critical care medicine. An intensivist directs the care of critically ill patients and works

in collaboration with other health care professionals necessary for the care of patients in critical care units. (Society of Critical Care Medicine).

Leapfrog Group

A coalition of more than ninety public and private organizations that provide health care benefits was created to help save lives and reduce preventable medical mistakes by mobilizing employer purchasing power to initiate breakthrough improvements in the safety of health care and by giving consumers information to make more informed hospital choices. It is a voluntary program aimed at mobilizing large purchasers to alert the healthcare industry that big leaps in patient safety and customer value will be recognized and rewarded with preferential use and other intensified market reinforcements.

Licensed Neonatal Intensive Care Unit

A neonatal intensive care unit that is licensed by the State of Michigan to provide care to at-risk newborn infants.

Low Birthweight Infants

Low, very low, and extremely low birth weight are measured by the percent of infants who are below a specific weight at birth: 2,500 grams for low birth weight (LBW); 1,500 grams for very low birth weight (VLBW); and 1,000 grams for extremely low birth weight (ELBW). (US Department of Health & Human Services). For the purposes of this survey, low birthweight infants are those who weigh less than 1500 grams at birth. Here, the major diagnostic code equals 15 and diagnosis codes equal 764.01 - 764.05, 764.11 - 764.15, 764.21 - 764.25, 764.91 - 764.95, 765.00 - 765.05, or 765.10 - 765.15.

Medical Necessity

A treatment or service that is appropriate and consistent with diagnoses and which, in accordance with local accepted standards of practice, cannot be omitted without adversely affecting the patient's condition or the quality of care. (JCAHO Lexicon 1998).

Michigan Health and Safety Coalition

The Michigan Health and Safety Coalition (MH&SC) is a collaborative quality improvement effort focused on improving patient safety in Michigan. Its mission is to help improve health care quality in Michigan through cost-effective improvements in patient safety, including medical errors, across all health care settings. Its goals are to: 1) provide leadership and share knowledge on patient safety issues in Michigan; 2) develop and/or support systemic approaches to identifying and learning from errors with a focus on continuous improvement; 3) encourage the establishment of performance standards for patient safety, medical error reporting and continuous improvement; and encourage the provision of positive incentives for improved performance; and 4) support a culture of safety by encouraging the implementation of safety systems in health care organizations. Its membership is diverse and includes representatives from health care plans, health care providers, and employer and union groups and it anticipates the need to work with other entities and experts (academics, legislators, legal, systems, and data analysts) to carry out the actions specified by the Coalition. (http://www.mihealthandsafety.org).

MRI Capabilities

MRI is a non-invasive procedure that uses powerful magnets and radio waves to construct pictures of the body.

Unlike conventional radiography and Computed Tomographic (CT) imaging, which make use of potentially harmful radiation (X-rays), MRI imaging is based on the magnetic properties of atoms. A powerful magnet generates a magnetic field roughly 10,000 times stronger than the natural background magnetism from the earth. A very small percentage of hydrogen atoms within a human body will align with this field.

When focused radio wave pulses are broadcast towards the aligned hydrogen atoms in tissues of interest, they will return a signal. The subtle differences in that signal from various body tissues enables MRI to differentiate organs, and potentially contrast benign and malignant tissue.

Any imaging plane (or "slice") can be projected, stored in a computer, or printed on film. MRI can easily be performed through clothing and bones. However, certain types of metal in the area of interest can cause significant errors in the reconstructed images. (MEDLINEplus Encyclopedia http://www.nlm.nih.gov/medlineplus/ency/article/0003335.htm).

The term “MRI capabilities” refers to whether or not a hospital can provide the type of MRI services required to clinically assess infants born with major congenital anomalies.

Neonatal Intensive Care Unit

A unit of a hospital for the treatment and continuous monitoring of infants with life threatening conditions who are generally less than 23 days old on admission to the unit. (JCAHO Lexicon 1998).

Nurse Practitioner

A nurse practitioner (NP) is a registered nurse with advanced academic and clinical experience, which enables him or her to diagnose and manage most common and many chronic illnesses, either independently or as part of a health care team. A nurse practitioner provides some care previously offered only by physicians and in most states has the ability to prescribe medications. Nurse practitioners are educated through programs that grant either a certificate or a master’s degree. Lastly, the scope of an NP’s practice varies depending upon each state’s regulations. (http://www.aanp.org/nurse.htm).

Open Abdominal Aortic Aneurysm Repair

Refers to the open surgical procedures used to treat abdominal aortic aneurysms. An abnormal dilation of the abdominal portion of the aorta (the major artery from the heart). (MEDLINEplus Encyclopedia http://www.nlm.nih.gov/medlineplus/ency/article/000162.htm). This guideline is intended to reflect elective, scheduled repairs. Procedure codes equal 38.34, 38.44, or 38.64 (regardless of diagnosis codes) or procedure code equals 39.25, 39.51, or 39.52 and diagnosis codes equal 441.0, 441.02, 441.03, or 441.3-441.9.

Open Carotid Endarterectomy Surgery

Carotid artery surgery is a surgical procedure to remove fat and cholesterol build-up (plaque) from inside the carotid artery in the neck and restore adequate blood flow to the brain. (MEDLINEplus Encyclopedia http://www.nlm.nih.gov/medlineplus/ency/article/002951.htm). Encyclopedia - Refers to the open surgical procedures used to treat carotid artery disease. Procedure codes equal 38.12, 38.32, or 38.42.

Open Heart Surgery

Any surgery where the chest is opened and surgery is performed on the heart. The term "open" refers to the chest, not the heart itself (which may or may not be opened depending on the type of surgery). Open heart surgery includes surgery on the heart muscle, valves, arteries, or other structures. A heart-lung machine (also called heart-lung bypass) is usually used to help provide oxygen-rich blood to the brain, heart muscle, and other vital body areas. It pumps the blood, supplies oxygen to the blood, and removes carbon dioxide from the blood.

There are some new surgical procedures being performed that are done with the heart still beating. The procedures are referred to as minimally invasive heart surgery or limited access coronary artery surgery. These procedures are being evaluated in several medical centers as an alternative to the standard methods using the heart-lung machine. (MEDLINEplus Encyclopedia http://www.nlm.nih.gov/medlineplus/ency/article/002950.htm).

For the purposes of this survey, an open heart procedure is defined as age greater than fourteen (14), principle diagnosis not equal to 745.0-747.9 and procedure codes equal 33.6, 35.10-35.99, 36.03, 36.10-36.19, 36.31, 36.39, 36.91, 36.99, 37.10-37.12, 37.31-37.33, 37.35, 37.4, 37.5, or 37.62-37.67.

Percutaneous Coronary Interventions

These interventions include transluminal percutaneous coronary angioplasty as well as rotational atherectomy, directional atherectomy, extraction atherectomy, laser angioplasty, implantation of intracoronary stents and other catheter devices used to treat coronary atherosclerosis. (Michigan Health and Safety Coalition Expert Clinical Panel on Cardiology, 2001). Procedure codes equal 36.01, 36.02, 36.05, 36.06, or 36.09.

Physician Extender

The terms "physician extender" (PE) and "mid-level provider" are interchangeable catchall phrases used to refer most often to physician's assistants (PAs) and nurse practitioners, as well as to nurse-midwives and other allied health professionals. An appropriately qualified physician extender is defined as a physician assistant or a mid-level practitioner such as a nurse practitioner or a clinical nurse specialist who is FCCS certified and meets the competencies required by the hospital's credentialing committee.

Primary Medical or Surgical Attending Physician

In relationship to care provided by an intensivist in an ICU, a patient's primary medical attending physician may be the general practitioner or specialist in cardiology or internal medicine who routinely provides care to the patient in the ambulatory setting. The primary surgical attending is the surgeon who performed an operation or procedure upon the patient.

Radiation Therapy

A treatment approach that uses radiation to destroy cancer cells. Radiation therapy is used to fight many types of cancer. Often it is used to shrink the tumor, which is then removed during surgery, or given after surgery to prevent tumor recurrence. Sometimes it is the only treatment needed to cure certain types of cancer. It may also be used to provide temporary relief of symptoms, or to treat malignancies that are not amenable to surgery. (MEDLINEplus Encyclopedia http://www.nlm.nih.gov/medlineplus/ency/article/001918.htm).

Rapid Referral

In relation to the provision of care to infants born with major congenital anomalies, "rapid referral" means that the infant is transferred to an appropriate medical, surgical, or pediatric subspecialist or facility in a prompt manner that does not further compromise the infant's health.

Risk-Adjusted Morbidity Indicators

Morbidity indicators/rates that take into account differences in case mix to allow for more valid comparisons between groups. Indicators are 1) measures used to determine, over time, performance of functions, processes, and outcomes and 2) statistical values that provide an indication of the condition or direction over time of performance of a defined process or achievement of a defined outcome. (http://www.jcaho.org/perrmeas/coremeas/cm_gloss.html). (http://www.jcaho.org/sentinel/se_glsry.html).

Examples of morbidity indicators include: For open heart surgery: re-operation for post-operative bleeding, deep sternal infection, permanent stroke, prolonged ventilation, and post-operative renal failure. For carotid endarterectomy surgery, one measure of morbidity is stroke, which is defined as any neurological deficit not present at the time of admission. For abdominal aortic aneurysm repair consider graft infection, renal failure, subsequent amputation, and leaks. For esophagectomies for cancer consider respiratory complications, anastomotic leak rates, dysphagia, post-operative dilatation, regurgitation, and dumping symptoms. (Michigan Health and Safety Coalition Cardiothoracic Surgery, Vascular Surgery, and Thoracic Surgery Expert Panels, 2001).

Risk-Adjusted Mortality

A mortality rate that takes into account differences in case mix to allow for more valid comparisons between groups (http://www.jcaho.org/perrmeas/coremeas/cm_gloss.html). Mortality could include not only risk-adjusted death rates, but observed to expected mortality ratios. For low birthweight infants and infants with congenital anomalies admitted to the NICU consider neonatal survival statistics adjusted by weight and gestational age.

Risk-Adjusting

A statistical process for reducing, removing, or clarifying the influences of confounding factors that differ among comparison groups (e.g., logistic regression, stratification). (JCAHO Lexicon 1998 and http://www.jcaho.org/perrmeas/coremeas/cm_gloss.html).

Risk-adjustment System

The statistical algorithm that specifies the numerical values and the sequence of calculations used to risk-adjust performance measures. (JCAHO Lexicon 1998). An example of an algorithm is the Risk Adjusted Mortality Index (RAMI), a model for measuring the risk of death during a hospital stay for specific diagnoses and procedures. The following variables are used: the patient's age, race, sex and DRG cluster; the presence or absence of comorbidities; the presence of any secondary diagnosis of cancer (other than skin cancer); and total number of morbidities. (JCAHO Lexicon 1998).

Society of Thoracic Surgery (STS) Database

The STS National Cardiac Surgery Database is pooled case-specific anonymous clinical information from over 1.2 million surgical case records. The data collection is a collaborative effort of surgeons across the United States and Canada (http://www.sts.org).

Telemedicine

The use of real-time video transmissions and stored electronic data to facilitate health care delivery between distant locations. A method of providing medical care through a video communications interface with the physician at one site and the patient at another site.

Tumor Board

A multidisciplinary group of medical and surgical specialists within a given hospital who review the clinical records of patients with cancer. For purposes of this survey, tumor boards would review clinical records of patients with cancer of the esophagus and evaluate treatment options in light of the clinical condition and make recommendations regarding treatment options.

The term "multidisciplinary" refers to a group of clinical staff members composed of representatives of a range of professions, disciplines, or service areas. (http://222.jcaho.org/standard/disease_fr_std.html).

Vermont Oxford Network Database

The Network maintains a Database for infants 401 to 1500 grams who are born at participating hospitals or admitted to them within 28 days of birth. Member institutions also have the option of submitting data for infants weighing over 1500 grams at birth, who are admitted to a participating hospital neonatal intensive care unit or who die within 28 days of birth. Infants transferred to another hospital prior to final discharge to home are tracked and their survival status is determined. The Database is used to provide comprehensive, confidential reports to participating hospitals, which serve as the foundation for local quality improvement projects, internal audit, and peer review. The Database also provides information for use in

outcomes research. Members have the option of submitting data for very low birth weight infants on paper forms or electronically. Members participating in the expanded Database for all NICU infants must submit all data electronically. (http://www.vtoxford.org).