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The Leapfrog Group Survey: 2006 Michigan Results and 2007 Survey

Barbara Rudolph, Ph.D.
Director, Leaps and Measures
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Session Overview

- Why implement Leapfrog Survey?
  – Lives saved
- Michigan's Results in 2006 survey
  – Opportunities for improvement
- Leapfrog's 2007 Survey
    - Computerized Physician Order Entry (CPOE)
    - Intensive Care Physician Staffing (IPS)
    - Evidence-based Hospital Referral (EBHR)
    - Safe Practices Score
    - Implementation Tools and Strategy

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Why the "Leapfrog" Group?

Our Mission is to "trigger giant **LEAPS** forward in the safety quality and affordability of health care

- Research commissioned by Leapfrog shows that if the first three leaps were implemented in every non-rural hospital in the U.S. we could **save up to 65,341 lives** and **prevent up to 907,600 medication errors** each year (Birkmeyer 2004). Implementation could also **save up to $41.5 billion annually** (Conrad 2005).

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Patient Safety National Survey Results

As of January 31, 2007

- Over 1323 hospitals nationwide had responded to Leapfrog's 2006 survey
- 51% of hospitals targeted by Leapfrog's Regional Roll-Outs have responded
- 239 hospitals from non – RRO areas have submitted
- 60% of hospitals met at least one leap fully
- Rural Hospitals had 24% of hospitals fully meeting Safe Practices Leap

Michigan Results with Benchmarks

	All Areas			Michigan		
	2004	**2005**	**2006**	**2004**	**2005**	**2006**
CPOE						
Admissions	11,730,078	12,717,075	13,657,532	877,147	845,294	939,152
Meets Std	954,984	1,246,136	1,512,667	75,726	74,594	105,480
% Meeting	8.1%	9.8%	11.1%	8.6%	8.8%	11.2% (1)
Lives Saved	102	133	162	8	8	11
Remaining Oppty	1,153	1,227	1,300	86	82	89
IPS						
Admissions	1,597,934	1,628,315	1,595,002	109,064	103,231	113,999
Meets Std	382,145	525,536	607,048	48,643	38,907	61,387
% Meeting	23.9%	32.3%	38.1%	44.6%	37.7%	53.8%
Lives Saved	13,299	18,289	21,125	1,693	1,354	2,136
Remaining Oppty	42,309	38,377	34,381	2,103	2,238	1,831
EBHR						
Admissions	647,715	711,159	777,285	52,601	46,434	45,486
Meets Std	176,198	221,917	252,440	16,697	14,447	11,895
% Meeting (wtd)	48.3%	39.0%	38.2%	40.2%	44.3%	38.0%
Lifes Saved (wtd)	3,612	4,480	5,121	306	314	271
Remaining Oppty	6,861	7,001	8,301	456	395	441

(1) Percent of Admissions

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Michigan EBHR Results

	Evidence-Based Hospital Referral							
	All Areas				Michigan			
	2003	2004	2005	2006	2003	2004	2005	2006
CABG								
Std. Applies	382	416	456	503	23	24	23	24
Meets Std	50	54	59	49	7	9	8	2
% Meeting	13.1%	13.0%	12.9%	9.7%	30.4%	37.5%	34.8%	8.3%
PCI								
Std. Applies	415	472	523	584	24	24	24	25
Meets Std	46	56	80	111	7	3	3	5
% Meeting	11.1.%	11.9%	15.3%	19.0%	29.2%	12.5%	12.5%	20.0%
AAA Repair								
Std. Applies	601	660	712	754	45	45	44	43
Meets Std	21	25	43	34	0	3	4	3
% Meeting	3.5%	3.8%	6.0%	4.5%	0.0%	6.7%	9.1%	7.0%

Michigan EBHR Results

	Evidence-Based Hospital Referral (cont'd)							
	All Areas				Michigan			
	2003	2004	2005	2006	2003	2004	2005	2006
Pancr								
Std. Applies	349	478	527	555	23	30	26	28
Meets Std	55	82	100	122	5	8	6	8
% Meeting	15.8%	17.2%	19.0%	22.0%	21.7%	26.7%	23.1%	28.6%
Esoph								
Std. Applies	335	443	490	534	26	28	29	27
Meets Std	28	48	55	74	2	4	7	3
% Meeting	8.4%	10.8%	11.2%	13.9%	7.7%	14.3%	24.1%	11.1%
NICU								
Std. Applies	396	412	452	489	16	18	20	19
Meets Std	96	129	165	141	5	8	12	9
% Meeting	24.2%	31.3%	36.5%	28.8%	31.3%	44.4%	60.0%	47.4%

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Michigan: Remaining Opportunity in EBHR

	CABG	PCI	AAA	Pancr	Esoph	NICU	Total
Cases	7,922	28,275	2,093	225	210	6,761	45,486
Meets Standard	1,380	4,831	351	177	168	4,988	11,895
% Meeting	17.4%	17.1%	16.8%	78.7%	80.0%	73.8%	38.0%
Lives Saved	23	48	7	10	10	174	271
Remaining Oppty	107	234	33	3	2	62	441

Urban areas only

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	Michigan Total # Fully Meet Leap	Michigan AVE % Fully Meet Leap	National AVE % Fully Meet Leap
Reporting	110 (80% targeted 89% of beds)		1323 Submissions
CPOE	**8**	**7%**	**7%**
IPS	**22**	**26%**	**27%**
CABG	**3**	**12%**	**12%**
PCI	**6**	**22%**	**21%**
AAA	**3**	**6%**	**5%**
Panc.	**8**	**25%**	**21%**
Esoph.	**3**	**3%**	**13%**
NICU	**9**	**43%**	**30%**
SPS	**58**	**55%**	**50%**

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Michigan Results—Highly Weighted SP

	Michigan Average % Fully Implemented	National Average % Fully Implemented
SP#1—Create a Culture of Safety	29%	29%
SP#3 Nurse Staffing	53%	55%
SP#9—Transfer Information to All Providers	51%	48%
SP#18—Use dedicated anti-coag services	33%	22%

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New Survey for 2007

Rationale for updates, changes

- Harmonization of measure sets
- New measures and revisions to existing measures
- Revised weighting for Safe Practices

- Basic structural design of survey maintained
- No change to IPS; Minimal Change to CPOE

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2007 Timeline

- March 5, 2007—Leapfrog Launches 2007 Survey
- May 31, 2007- RRO targeted hospitals report or be listed on Leapfrog's Web site as Did Not Disclose
- June 7th, 2007 Website lists new results
- August 2007 Top Hospitals List--**Recognition programs/initiatives will be done in 2007 beginning as early as August**

Overview of Leaps

1. Computerized Physician Order Entry (CPOE)
    - Up to 8 in 10 serious drug errors prevented
    - Criteria to fully implement Leap—Prescribers enter 75% of orders via CPOE meeting requirements
    - CPOE systems must be linked to other hospital IT; must contain decision-support and require documented overrides for alerts
    - **NEW in 2007 - 1st Commitment timeframe has changed from 1 to 2 years.**
    - Change is in response to research indicating that successful planning and implementation of a comprehensive CPOE system takes a significant time investment (Bates)

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Overview of Leaps (cont.)

2. Intensive Care Physician Staffing (IPS)

- Sick People Need Special Care
  - ICU Daytime Staffing with Critical Care Medicine (CCM) Trained M.D. live or via tele-monitoring
  - To fully meet must manage or co-manage all cases—and be present in ICU 8 hrs/7 days week; partial credit for fewer days
  - Standard shown to reduce mortality by 29% (JAMA, 11/02)
  - JCAHO mortality measures still under review. Leapfrog will align with JCAHO once measures are endorsed

Overview of Leaps (cont.)

3. Evidence-based Hospital Referral (EBHR) *or* risk-adjusted outcomes comparison
   - Establishes thresholds for hospital and surgeon volume
   - Utilizes mortality where available; provides additional credit for participation in national performance measurement systems when reported and adherence to process measures
   - Measures together provide evidence of where to send patients

EBHR Procedures/Condition

- CABG
- PCI
- AAA
- Esophagectomy
- Pancreatectomy
- High Risk Deliveries
- *Aortic Valve Replacements* (NEW in 2007)
- *Bariatric Surgeries* (NEW IN 2007)

EBHR Measures Vary by Procedure

- CABG includes hospital volume, surgical volume, risk-adjusted mortality, and 8 process measures
- PCI includes hospital volume, surgical volume, risk-adjusted mortality, and 3 process measures
- AAA includes hospital volume, surgical volume and 2 process measures, and raw volume
- Aortic Valve Replacement includes hospital volume, surgical volume and risk-adjusted mortality
- Bariatric Surgery includes hospital volume, surgical volume, and raw mortality
- High Risk Deliveries include NICU census, and 1 process measure (antenatal steroids)

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Addition of Surgeon Volume

Purpose of Change:

To incorporate accumulated new scientific evidence of surgeon volume effects on outcomes

Approach:

- Leapfrog will request hospitals provide the total number of surgeons electively performing the specific procedure for the same period of time used for hospital volume
- Leapfrog will ask how many of the surgeons who electively perform the procedure, perform the recommended number of procedures/ year based on either in-hospital counts or incorporating all procedures by a surgeons
- Thresholds for scoring were set based on research evidence related to reductions in mortality at a specific number of procedures—experience counts! This will be incorporated into overall score for each relevant EBHR procedure or treatment (see slide 19)

To Meet EBHR Volume Standard

High Risk Procedure	Hospital Volume	Surgeon Volume
CABG	450 or more	100
PCI	400 or more	75
AVR	120 or more	22
AAA	50 or more	8
Pancreatectomy	11 or more	2
Esophagectomy	13 or more	2
Bariatric	100 or more	20

NICU average daily census > 15

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Addition of "mortality question"

- Hospitals will be asked to report the number of deaths occurring in the inpatient setting for the cases reported in the volume count for all procedures
- A composite methodology under development by Drs. Birkmeyer and Dimmick will take into account hospital volume and number of deaths
- Data received will be analyzed and may be reported later in this survey cycle. We will not publicly report the number of raw deaths reported by a hospital
- Raw mortality = count of deaths occurring following high risk procedure in the inpatient setting

New Transparency Indicator

The survey will now recognize other reporting initiatives that:

- are provided to the public beyond just a hospital/health system web site
- are listed in the AHRQ compendium
- are available at no cost and without use of a password
- require unique data submissions
- provide comparisons across hospitals

Never Events Policy

- In the 2007 survey hospitals will be asked if they comply with the Leapfrog Policy Statement on “Never Events” or if they intend to comply
- Hospitals reporting intent to comply must return to the survey and indicate compliance within 60 days or their names will be removed from the compliance report at the next month’s update

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Safe Practices

- Safe practices measures—how hospitals should approach survey questions
  - Purchase NQF Report PDF
  - Examine highly weighted measures (Culture of Safety)
  - Use tools with survey questions
  - Examples of decision tool used by health system

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Changes to Safe Practices

- Safe Practices grouped into chapters
- Harmonized measures in report and LF survey (specific measures from JCAHO, CMS, and others cited for credit)
- 3 practices eliminated through merger
- 3 new practices added
  - #4 Disclosure
  - #6 Direct Caregivers
  - #14 Medication Reconciliation
- More specific implementation requirements
- No credit for commitments
- Thresholds remain the same

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EXECUTIVE SUMMARY OVERVIEW	2004 Weight	2007 Weight
CHAPTER 2: Creating and Sustaining A Culture of Patient Safety		
Practice Element1: Leadership Structures and Systems	263 (Prior SP 1)*	120
Practice Element 2: Culture Survey Measurement and Feedback		20
Practice Element 3: Teamwork & Team interventions	300 SME	40
Practice Element 4: Identification & Mitigation of Risks and Hazards		120
CHAPTER 3: Informed Consent, and Disclosure		
Safe Practice 2: Informed Consent (Prior SP 10)	9	4
Safe Practice 3: Life-Sustaining Treatment. (Prior SP 11)	12	4
Safe Practice 4: Disclosure	NA	25
CHAPTER 4: Matching Healthcare Needs With Service Delivery Capacity		
Safe Practice 5: Nursing Workforce (Prior SP 3)	119	100
Safe Practice 6: Direct Caregivers	NA New	20
Safe Practice 7: ICU Care	Leap 2	
CHAPTER 5: Facilitating Information Transfer and Clear Communication		
Safe Practice 8: Critical Care Information (Prior SP 9)	84	84
Safe Practice 9: Order Read-Back (Prior SP 6)	36	25
Safe Practice 10: Labeling Studies (Prior SP 13)	16	15
Safe Practice 11: Discharge Systems (Prior SP 8)	17	25
Safe Practice 12: Safe Adoption of CPOE	Leap 1	
Safe Practice 13: Abbreviations (Prior SP 7)	17	15
CHAPTER 6: Improving Patient Safety Through Medication Management		
Safe Practice 14: Medication Reconciliation	NA New	35
Safe Practice 15: Pharmacist Role (Prior SP 5)	32	32
Safe Practice 16: Standardizing Medication Labeling and Packaging (Prior SP 28)	22	20
Safe Practice 17: High Alert Medications (Prior SP 29)	21	20
Safe Practice 18: Unit Dose Medications (Prior SP 30)	29	25

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What went up or is new?

- ✓ Culture – 263 to 300
- ✓ Disclosure – 25
- ✓ Direct Care Giver - 20
- ✓ Medication Reconciliation - 35

EXECUTIVE SUMMARY OVERVIEW	2004 Weight	2007 Weight
CHAPTER 7: Prevention of Healthcare-Associated Infections		
Safe Practice 19: Prevention of Aspiration and VAP (Prior SP 19)	24	20
Safe Practice 20: CVC BSI Prevention (Prior SP 20)	33	30
Safe Practice 21: Surgical Site Prevention (Prior SP 21)	37	30
Safe Practice 22: Hand Hygiene (Prior SP 25)	33	30
Safe Practice 23: Influenza Prevention (Prior SP 26)	11	10
Chapter 8: Condition and Site-Specific Practices		
Safe Practice 24: Evidence Based Referrals	Leap 3	
Safe Practice 25: Wrong Site, Wrong Procedure, Wrong Person Surgery Prevention (Prior SP 14)	30	20
Safe Practice 26: Perioperative Myocardial Infarct/Ischemia Prevention (Prior SP 15)	23	20
Safe Practice 27: Pressure Ulcer Prevention (Prior SP 16)	28	25
Safe Practice 28: DVT/VTE Prevention (Prior SP 17)	27	25
Safe Practice 29: Anticoagulation Therapy (Prior SP 18)	39	35
Safe Practice 30: Contrast Media Induced Renal Failure Prevention (Prior SP 22)	12	10

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Tools Available to Hospitals

To assist hospitals in completing the Survey, Leapfrog makes the following tools available:

- Frequently Asked Questions
- Overview of “What’s New in 2007?”
- Fact sheets on Each Leap (including bibliography information)
- Scoring Algorithms
- End Notes
- Link to purchase NQF Safe Practices PDF file

Tools for EBHR

Specific to the EBHR Leap:

- **Medical Coding for High-Risk Procedures and Conditions**
  Procedure code, diagnosis codes and other specifications for counting high-risk surgery volumes

- **Publicly Reported Outcomes for CABG and PCI**
  For hospitals in CA, NJ, NY and PA – publicly reported risk-adjusted mortality rates for responding to survey questions about PCI (NY only) and CABG (all four states).

- **Process Measures -- Specifications**
  Detailed specifications for Leapfrog's procedure-specific process measures of quality -- for CABG, PCI, AAA Repair and high-risk deliveries.

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Approach to Survey

- Approach to first three leaps–
  - start immediately on EBHR; specifically surgeon volume, procedure volume, and mortality;
  - assess whether you need to acquire information on surgeon volume from external sources
  - Utilize surgeon volume collection tool in survey endnotes—read FAQs

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Approach to Safe Practices Score (SPS)

- Attend Town Hall Call (Separate calls for Rural Hospitals)
- Gather team/identify lead for data gathering/meet weekly to share information
- Purchase online PDF of NQF Report
- Download all documents—be sure each team member has access to FAQs/End Notes—about 75% of calls to help desk can be answered through FAQs or End Notes
- Identify gaps for highly weighted items (Culture—now 300 points out of 1000)
- Determine possible priorities for improvement—very possible score will go down—no credit for commitments
- Meet with C-suite to articulate areas where rapid improvements can be made…

Example: Prioritizing Action on SPS

Small Wt	8-16	17-27	28-33	34-119 Large
EASY (4)	11** 22*, 23*, 26*	28*	14**, 25** 20*, 30*	
(3)	(24)	19*, 17	5**, 16*	21**
(2)	13** (10)	7		3**, 6**
(1) Hard	(27)	29** (8), 15		9

** JCAHO/NPSG/CMS/High Priority

* JCAHO coming in 2005 and/or need to add perf. evals and fairly easy to implement

( ) Low priority

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Questions and Answers

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How can we acquire information on procedures done by surgeons at other locations?

From *the endnotes:*

- A number of states publicly report on surgeon volume within and across facilities.
- In other states, hospital discharge datasets or custom data requests containing physician identifiers may be available for purchase from either the state agency or the state hospital association.
- In states where this is not mandated, Leapfrog suggests that hospitals seek information (directly from surgeons) who have information provided to them by national performance measurement systems (STS, ACC, ACS).
- Other alternatives for acquiring this information include private vendors and health plans.

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Safe Practices and the First 3 Leaps

WHY are these three leaps called out from the remaining NQF Safe Practices that are in the 4th Leap's rolled up score?

- Continuity of measurement across time to allow purchasers and consumers to assess progress
- EBHR utilizes endorsed measures other than the Safe Practices (e.g., CABG, PCI and valve surgeries endorsed in the Cardiac Measure Set)
- CABG, PCI, and High Risk Deliveries and Bariatric surgery of import to purchasers, but not listed in the EBHR Safe Practice
- Process measures are harmonized with other national performance measures from JCAHO, STS, and VON

Example of New Safe Practice #14

Preventing Adverse Drug Events via Medication Reconciliation

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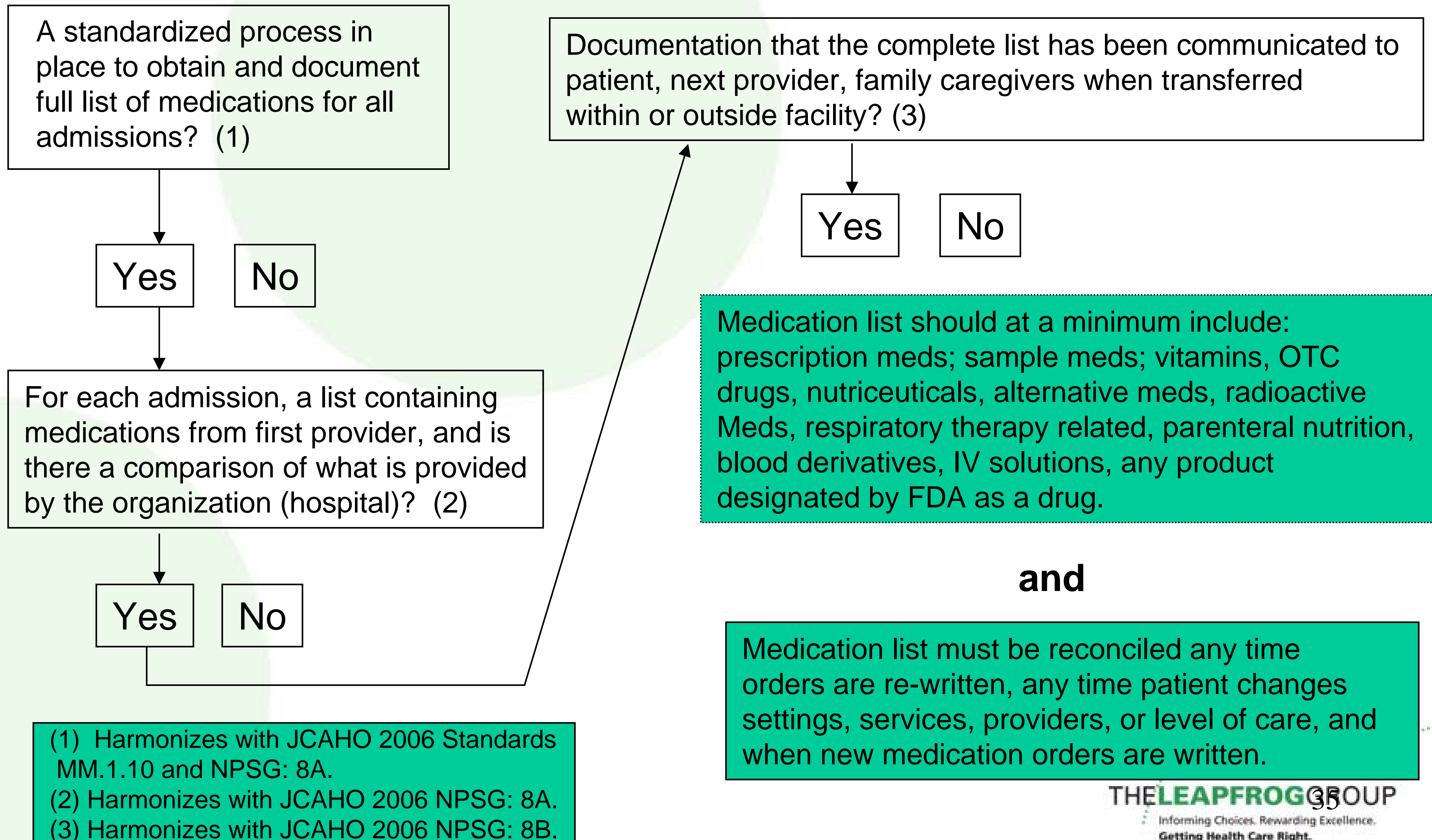
New Safe Practice (#14): Preventing Adverse Drug Events via Medication Reconciliation



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Safe Practice #14: Implementation Approaches Applicable to All Hospitals

- Develop and use template medication reconciliation to gather information about current medications and allergies, standardize care and prevent errors
- Identify internal champions to lead implementation of practice
- Use solutions provided by others including IHI
- Progressive organizations have active physician and nursing engagement, effective improvement team, actively engaged administrator, and collaborative initiatives

Leapfrog Survey Questions for SP #14

In regard to adverse drug events and the medication reconciliation process, our organization is:

- **Aware** of OUR performance improvement opportunity in this area in that…
    - within the last 12 months prior to submitting this survey, the organization has undertaken an evaluation of the frequency and severity of adverse drug events in our patient population, that includes an assessment of the potential impact of transitions from one care setting to another.
    - the organization has completed a review of the literature and performed an enterprise-wide evaluation of the frequency and severity of adverse events in our organization, including how to more effectively accurately reconcile and communicate an individual patient's medication profile within the facility as well as to their next care provider; and we have submitted a summary report to administration and governance with recommendations for measurable improvement targets and further action.
- **Accountable** to the issue of adverse drug events as evidenced by…
    - our CEO, senior executives, pharmacy director, and departmental/clinical service line managers being directly accountable through documented personal performance reviews or personal compensation incentives.
    - the Patient Safety Officer or an Administrator who oversees organizational patient safety regularly reports performance metrics related to this area of the medication use process to the CEO and board of trustees and is directly accountable for this area through documented performance reviews or compensation.

Survey Questions for SP#14

- **Invested in our ability to deal with this issue of adverse drug events by…**
  - conducting staff education/knowledge transfer and/or skill development in the area of reducing adverse drug events related to all aspects of the medication reconciliation process as outlined by this Safe Practice and additional specifications in alignment with the Joint Commission (JCAHO) Medication Management (MM) Standards and IHI 100,000 Lives Campaign bundle.
  - formally allocating dedicated multidisciplinary human resources to focus on adverse drug events including dedicated staff time and budge allocation to address identification, mitigation, and prevention strategies.
- Taking **action** to address this area as evidenced by…
  - already having actively implemented explicit organizational policies and procedures addressing all elements of this Safe Practice including Additional Specifications.
  - having completed a formal enterprise-wide performance improvement program (with regular performance measurement and tracking improvement having been done within the last 12 months) that addresses all elements of this Safe Practice, including Additional Specifications.

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Survey Questions SP #14

- Assure, at a minimum, the following elements of this Safe Practice, including Additional Specifications, have already been adopted into practice…
  - A standardized process that includes involvement of the patient and their family or caregiver, where appropriate, to obtain and document a complete list of each patient's current medications at the beginning of each episode of care
  - A complete list of medications prescribed as outlined in this Safe Practice, including the Additional Specifications, in alignment with JCAHO Medication Management and IHI bundle requirements.
  - A complete list of the patient's medications which are communicated to the next provider of service, the patient and, as appropriate, family/caregiver when a patient is referred or transferred to another setting, service, practitioner, or level of care within or outside the facility.
  - A list that includes a full range of medications defined in this Safe Practice and Additional Specifications, including JCAHO requirements.
  - The medication reconciliation which occurs any time the organization requires that orders be rewritten, any time the patient changes services, setting, provider, or level of care, and when new medications orders are written.

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