Intermountain Healthcare
Healing for life™

Approved December 9, 2009

2010 CLINICAL BOARD GOALS

WOMEN & NEWBORNS CLINICAL PROGRAM

Overview & Opportunity: Ventilator-associated pneumonia (VAP) is a source of morbidity, extended length of stay and cost in a newborn intensive care unit (NICU). The W&N Clinical Program began measuring VAP rates in 2006 and had a rate of 5.93 per 1000 ventilator days at that time. VAP has decreased gradually since 2006, and the goal is to further reduce infections using a system-wide NICU task force. The key areas of focus are implementing a standardized VAP bundle in each NICU, tracking and reporting key measures from the bundle monthly, educating clinicians and modifying the process based on outcomes. New standards from the Centers for Disease Control and Prevention (CDC) for VAP reporting came out in 2008, and Intermountain data elements have been modified effective July 2009, so we are establishing a new baseline.

2010 Goal for the Women & Newborns Clinical Program

Improve the system-wide rate of VAP in Level III Newborn Intensive Care Units (McKay, PCMC, IMED, UVRMC, and DRMC). In the event of a declared H1N1 pandemic, we will maintain the baseline system rate. (Final baseline will be determined in the end of December 2009.)

Entry Goal: < 2 VAP infections per 1,000 ventilator days
Target Goal: ≤ 1.2 VAP infections per 1,000 ventilator days
Stretch Goal: < 1 VAP infections per 1,000 ventilator days

Clinical Challenges to Meet the Goal: The challenge in achieving this goal is that the standardized VAP bundle includes attempting to get the extremely premature newborn off the ventilator and onto nasal oxygen quickly. Due to the already low VAP rate, a single VAP infection could impact the rate significantly.

Methodology: Data is collected through the Infection Control staff in each facility and information is pulled from the Enterprise Data Warehouse (EDW).

Measurement Time Period: January- September 2010

CARDIOVASCULAR CLINICAL PROGRAM

Overview & Opportunity: Optimizing quality, consistency, and safety throughout all of Intermountain Healthcare's cardiovascular catheterization laboratories (CV cath labs) will significantly enhance our culture of excellence for patients, staff and physicians. We have prioritized six areas within the cath lab processes to apply best practice guidelines, along with safety and compliance initiatives. Achieving this goal will enhance clinical and service outcomes, provide value, prevent adverse events, and assure a safe and compliant environment.

2010 Goal for the Cardiovascular Clinical Program

Optimize clinical processes for Cardiovascular Catheterization Laboratories (Logan, McKay, PCMC, IMED, UVRMC and DRMC) by achieving compliance in radiation safety, minimizing infection rates, assuring proper pre-procedure verification, improving medication safety, enhancing effective lab communication, and developing clinical emergency guidelines.

Entry Goal: 80% composite compliance
Target Goal: 90% composite compliance
Stretch Goal: 95% composite compliance

Clinical Challenges to Meet the Goal: The challenge in achieving this goal is that is covers a wide range of processes within the cath lab and that multidisciplinary teams will need to convene to develop a comprehensive plan to define best practice and implement the changes.

Methodology: One onsite survey per site will be performed during the Third Quarter 2010 by one or two assigned personnel from the CV Clinical Program. A survey instrument developed and approved by the CV Guidance Council will measure compliance in these six areas. Each site will be given an overall score which will then be averaged to create the system score.

Measurement Time Period: Third Quarter 2010

PRIMARY CARE CLINICAL PROGRAM/SELECTHEALTH

Overview & Opportunity: Glyco-hemoglobin (HbA1c) is a laboratory blood test that indicates a patient's average blood sugar over a three-month time period. It is the best measure of diabetes control. Studies show that glyco-hemoglobin levels below 7 (HbA1C<7) prevents complications from diabetes (heart disease, kidney disease, eye disease, and circulation and pain in the feet and legs). Our goal is to improve diabetes control in patients who are most severely out of control as indicated by having an HbA1c≥8 for 12 months or longer.

2010 Goal for the Primary Care Clinical Program (PCCP) and SelectHealth

Increase the percentage of adult SelectHealth patients with diabetes who have a glyco-hemoglobin <8.0 during the last 12 months. As of October 1, 2009, the performance is 81.6%.

Entry Goal: 82.1%
Target Goal: 83.0%
Stretch Goal: 85.0%

Clinical Challenges to Meet the Goal: The challenge in achieving this goal is that there are many complex reasons for uncontrolled diabetes (as shown by HbA1C > 8 for 12 months or longer). These include inadequate medical care, patient failure to follow the medical care plan due to financial challenges, life stressors, additional co-morbidities (other chronic illnesses), mental health issues, and socioeconomic issues.

Methodology: Data will be obtained from the diabetes data mart from October 1, 2009 to September 30, 2010 and will be available October 15, 2010. The diabetes data mart includes data from SelectHealth claims, the Clinical Data Repository (CDR), SelectHealth pharmacy data, IDX, and Mysis (laboratory) data bases. It is updated quarterly and housed within the EDW and maintained by

EDW staff and PCCP staff.

Measurement Time Period: January 2010 - September 2010

ONCOLOGY CLINICAL PROGRAM

Overview & Opportunity: Several studies have shown tumor conferences to significantly improve patient treatment, with one study documenting that tumor conference discussion resulted in changes to patient treatment plans in 52% of cases. These plans allow patients to achieve better treatment outcomes, minimize complications and avoid care that is not cost effective. Furthermore, multidisciplinary review can provide patients with useful additional information when making difficult treatment decisions.

Urban region facilities conduct several monthly tumor conferences in which the number of cases presented at each conference will vary. The Oncology Clinical Program, in conjunction with regional oncology programs, plans to implement strategies to increase the percentage of cancer cases presented at multidisciplinary tumor conferences.

2010 Goal for the Oncology Clinical Program

Increase (over 2008) the number of Intermountain cancer patients who are presented at a multidisciplinary tumor conference. The 2008 level for Urban North Region 25.7%; Urban South Region 16.4%; Urban Central Region 25.5%; and Southwest Region 20.7%.

Entry Goal: 7% increase
Target Goal: 10% increase
Stretch Goal: 13% increase

Clinical Challenges to Meet the Goal: The challenge in achieving this goal is working with regional oncology administration and clinical staff, and physician tumor conference leaders and regional cancer care providers to identify necessary and appropriate cancer cases that can be presented at tumor conference. Efforts will also be made to identify and increase cancer cases rarely presented at specific regional tumor conferences (i.e., colorectal, prostate, GYN, etc.). The management and process of tumor conferences will be evaluated and technology will be utilized to increase tumor conference access for physicians to present a cancer case.

Methodology: Data comes from cancer registry.

Measurement Time Period: First Quarter - Third Quarter 2010

INTENSIVE MEDICINE CLINICAL PROGRAM

Overview & Opportunity: Sepsis is a serious, sometimes overwhelming, blood stream infection that may eventually involve the whole body and become life threatening. Quick identification and early treatment, including consistently implementing the 11 items of the sepsis bundle, is critical to best care and improved patient outcomes. The goal is to significantly improve compliance with all elements of the sepsis bundle.

2010 Goal for the Intensive Medicine Clinical Program (IMCP)

Improve sepsis outcomes by complying with the composite sepsis bundle (all 11 components) for eligible patients admitted from the Emergency Department to the Intensive or Intermediate Care Unit. Hospitals involved include DRMC, Valley View, UVRMC, IMED, LDS, Alta View, American Fork, McKay, Logan and Cassia. The 2009 second and third quarters' compliance rate is 71%.

Entry Goal: 74% compliance rate
Target Goal: 77% compliance rate
Stretch Goal: 80% compliance rate

Clinical Challenges to Meet the Goal: The challenge in achieving this goal is the need for additional clinician and staff education and understanding of these processes. Implementing and ensuring compliance with all 11 bundle items on each patient identified is difficult and takes time to be hard-wired into standard practice.

Methodology: Caregivers document sepsis bundle interventions in the medical record and data from the medical record is collected on an ongoing basis by facility data collectors. The data is analyzed and presented on the IMCP website. Questions/issues regarding the sepsis bundle are discussed and resolved in the Critical Care/Emergency Care Development Teams.

Measurement Time Period: Average of Second and Third Quarters 2010

SURGICAL SERVICES CLINICAL PROGRAM

Overview & Opportunity: The medical literature shows that implementation of a multidisciplinary care process approach to colon surgery improves quality and shortens length of stay. Ambulation, patient education, fluid management, oral nutrition and limited use of opioid are important elements of this process. In 2009, implementation of our multidisciplinary colon surgery (MDCS) care process model in the urban facilities has shown decreased lengths of stay, decreased readmission rates, improved pain management and decreased overall care costs. Patient ambulation remains a challenge.

2010 Goal for the Surgical Services Clinical Program

Increase the system wide enrollment to the care process model and improve activity compliance for enrolled patients on the day of surgery, post-op day one and post-op day two. Current enrollment is 31% and current activity compliance is 3% in enrolled patients. Ambulation compliance is:

- Day of surgery: Ambulate twice if patient arrives in nursing unit before 2:00 P.M. or once if later
- Post-op day one: 180 minutes out of bed
- Post-op day two: 240 minutes out of bed

Entry Goal: 37% enrollment in MDCS care process model and 15% compliance to activity goals
Target Goal: 47% enrollment in MDCS care process model and 25% compliance to activity goals
Stretch Goal: 57% enrollment in MDCS care process model and 35% compliance to activity goals

Clinical Challenges to Meet the Goal: The challenge in achieving this goal is that the multi-disciplinary colon surgery care process model is most applicable to elective colon surgery patients, but the ultimate decision to enroll patients is determined by the surgeon and the hospital's ability to coordinate all facets of the care process. Increasing the enrollment rate requires working closely with

surgeons and hospitals that have already implemented the care process to identify additional classification of patients for enrollment. Improving adherence to the aggressive ambulation goals in the care process will also be a challenge because a culture change in the amount of ambulation and the documentation of ambulation is necessary.

Methodology: The Surgical Services Clinical Program will support facility leadership with education, analysis of data, and outcomes reporting.

Measurement Time Period: Third Quarter 2010

PEDIATRIC SPECIALTIES CLINICAL PROGRAM

Overview & Opportunity: The Novel H1N1 influenza virus that appeared and spread to pandemic levels May through June 2009 and again this fall will continue to pose challenges for pediatric providers. Per current CDC recommendations all children less than 5 years of age and children less than 18 years of age with a chronic condition (as described in *Pediatrics 2000*, Feudtner, et al) are considered to be at high risk of serious complications from this virus. Data from the "first wave" of this pandemic (April 15 to July 15, 2009) shows that children in these high-risk groups received recommended testing 69.8% of the time.

Appropriate viral testing is the key in identifying appropriate patient placement and treatment for children admitted to an inpatient unit. By improving the number of admitted children that are appropriately tested, providers and staff will have the information needed to provide quality, safe care.

2010 Goal for the Pediatric Specialties Clinical Program

Achieve an increased number of children under 5 years of age or under 18 years of age with a known chronic condition with influenza-like illness admitted to Intermountain facilities from January 1, 2010 to September 30, 2010 that have appropriate viral testing (DFA, PCR, or culture) to determine flu status. The outcome reflects an improvement in the percentage of admitted high-risk children with influenza-like illness that are tested using recommended viral testing.

Entry Goal:	80 % of patients with appropriate viral testing
Target Goal:	90% of patients with appropriate viral testing
Stretch Goal:	93% of patients with appropriate viral testing

Clinical Challenges to Meet the Goal: The challenge in achieving this goal is that physician practice patterns will need to change in a short amount of time while in the midst of coping with the H1N1 flu pandemic. Additionally, eight facilities will be working on this goal, four of which are new to working on a pediatric Board goal and will need to establish a team to implement the care and assist with the chart reviews.

Methodology: Data will be tracked monthly and reported as composite percentage for the year. McKay, Logan, PCMC, IMED, American Fork, UVRMC, Valley View, and DRMC will participate. Each facility will have an individual performance goal that will be reported in the clinical program. In the event that the numbers of patients admitted with influenza-like illness exceeds the capacity of the lab and testing is suspended, we will report the percentage of admitted children that receive anti-viral treatment.

Measurement Time Period: January - September 2010

BEHAVIORAL HEALTH CLINICAL PROGRAM

Overview & Opportunity: Patients with severe mental illness lose 25 or more years of life expectancy, with the majority of the excess premature deaths due to cardiovascular disease, not suicide. Individuals with severe mental illness have approximately 1.5 to 2 times the prevalence of diabetes, dyslipidemia, hypertension and obesity. Patients with a mental health diagnosis consume 34% to 44% of all cigarettes in the United States. The 2010 goal is a minimal standard and will be used as a baseline for future Board goals.

2010 Goal for the Behavioral Health Clinical Program

Screen and provide results for new behavioral health patients in acute inpatient, residential, day treatment, and outpatient psychiatry clinics.

Entry Goal: 10% screening rate
Target Goal: 20% screening rate
Stretch Goal: 30% screening rate

Clinical Challenges to Meet the Goal: The challenge in achieving this goal is staff education, tool development and documentation will be required. The 2009 audit for presence of all five screening elements was 0% in outpatient settings.

Methodology: Screening will include body mass index (BMI), diabetes, lipid abnormalities, smoking and hypertension. Screening will be appropriate to age of the patient and services rendered. Referral, when appropriate, will be documented. Acute services will audit 100% of new patients. Non-acute settings will complete a random audit of at least 10% of all new patients. The final score will be an average of the data from the UCR, PCMC, UNR, USR, Logan and DRMC--each equally represented in the final score.

Measurement Time Period: July- September 2010

PATIENT SAFETY

Overview & Opportunity: Hand Hygiene Programs are part of a nationwide effort to decrease hospital acquired infections and decrease the incidence of resistant organisms such as Methicillin Resistant Staphylococcus Aureus (MRSA) and Vancomycin-Resistant Enterococci (VRE). Infections are a serious problem in healthcare facilities; nationally, two million patients acquire a hospital-related infection and 90,000 die from them (CDC, hand hygiene interactive education). Many infections are transmitted on the hands of healthcare personnel. Hand hygiene is a standard precaution that can reduce the transmission of healthcare-associated infections. Organizations such as the CDC, World Health Organization, Association for Professionals in Infection Control and Epidemiology, Institute for Healthcare Improvement, and the Joint Commission promote active, aggressive hand hygiene programs and monitoring. Additionally, in October 2008, Centers for Medicare and Medicaid Services (CMS) began reducing payments for selected hospital acquired infections.

2010 Goal for Patient Safety

Attain improved composite rate of compliance to hand hygiene protocols in inpatient, outpatient, and medical clinic settings. (This goal represents a statistically significant improvement from the 2009 goal with the addition of hospital-based outpatient departments and the Medical Group.) The September year-to-date compliance rate is 91% which does not include hospital-based outpatient departments and the Medical Group.

Entry Goal: 91% compliance rate
Target Goal: 93% compliance rate
Stretch Goal: 94% compliance rate

Clinical Challenges to Meet the Goal: The challenge in achieving this goal is the addition of Medical Group participants and the hospital-based outpatient clinics. A small percentage improvement will require significant education and process change for the current and additional participants.

Methodology:

- Goal measured by monthly hand hygiene prevalence surveys in clinical inpatient, hospital-based clinical outpatient, and medical group settings. A hand washing opportunity is defined as the washing of hands with soap and water for 15 seconds or use of alcohol hand sanitizer performed before and after patient contact.
- Inpatient care units providing direct patient care will observe and report a minimum of 40 opportunities per month. A patient care unit is defined as a department where there is the potential for a patient to reside overnight including Emergency Departments (in urban facilities) and Labor and Delivery.
  - The 40 observations will be grouped and categorized as: 20 observations RN / LPN / aide / health unit coordinator (HUC); 10 observations MD/LIPs (PA, APRN); and 10 observations all other employees.
- Rural facilities: A minimum of 40 opportunities observed per month per facility; observations will be grouped in the same categories as inpatient care units.
- Hospital-based outpatient departments: A minimum of 20 opportunities observed per month; no groupings will occur. Reporting for outpatient departments will occur under their respective hospitals.
- Medical group:
  - A minimum of 20 opportunities observed per month per department; no groupings will occur.
  - The aggregated hand hygiene rate from each Medical Group region will be used in the calculation of the overall system-wide goal as opposed to the individual rate from each clinic department.
- Homecare: A minimum of 20 opportunities observed per month; groupings will not include physicians.
- Due to instances where departments observe more than their expected number of observations per month, each department's percentage is weighted to their expected number of observations.
- Data will be entered into the hand hygiene data entry application.
- For each entity to meet its goal, the minimum sample size for each month in the goal period must be met, as well as a composite rate of 93% or greater.

Measurement Time Period: August - October 2010

PRIMARY CHILDREN'S MEDICAL CENTER

Overview & Opportunity: Numerous studies have shown that central line associated blood stream infection (CLA-BSI) is associated with increased risk of mortality and increased length of stay. In addition, CLA-BSI causes discomfort to patients and increases medical expense.

In recent years, PCMC Pediatric Intensive Care Unit (PICU) has taken various steps aimed at reducing CLA-BSI rate. Nevertheless, national benchmarking data indicates that PCMC's PICU and Cardiac Intensive Care Units (CICU) have substantial opportunity for additional improvement. Recent research has validated the effectiveness of several interventions, which PCMC has not yet instituted. According to the research, the most impactful of these measures is the Central Line Maintenance Bundle. All of these interventions have been defined and tested by PICUs at other children's hospitals around the United States.

2010 Goal for Primary Children's Medical Center

Reduce the combined PICU/CICU CLA-BSI rate. Baseline over the recent 12 months (July 2008-July 2009) is 3.67 infections per thousand line days.

Entry Goal:	10% improvement (3.30)
Target Goal:	15% improvement (3.12)
Stretch Goal:	20% improvement (2.94)

Clinical Challenges to Meet the Goal: The challenge in achieving this goal is that the team will need to study and implement National Association of Childrens Hospitals and Related Institutions (NACHRI) recommendations for a central line insertion bundle and central line maintenance bundle in pediatric intensive care units. To do so successfully, the team will need to change longstanding practice habits of physicians and nurses, create education materials and perform formal education, implement measurement and feedback systems, and review and follow up on individual failures.

Methodology: PCMC's infection control and prevention staff uses a standard methodology for collecting and reporting CLA-BSI rates. The methodology is consistent with state and national standards.

Measurement Time Period: May - October 2010

RURAL FACILITIES

Overview & Opportunity: The Surgical Care Improvement Project (SCIP) is a collaborative effort involving a number of national organizations whose purpose is to improve surgical care by significantly reducing surgical complications. We track various SCIP parameters, such as appropriate selection and timing of perioperative antibiotics, as part of the Joint Commission Core Measures. Performance on these measures in our rural facilities has lagged behind system performance.

2010 Goal for Rural Facilities

Improve Rural Region performance (rural region hospitals plus Bear River Hospital) on the composite SCIP measure "All Surgical Care Process Measures Adhered To." Current Rural Region performance on this measure is 75%. System wide performance on this measure is currently at 83.7%.

Entry Goal: 79.9% SCIP composite
Target Goal: 82.4% SCIP composite
Stretch Goal: 83.7% SCIP composite

Clinical Challenges to Meet the Goal: The challenge in achieving this goal includes the addition of Park City Medical Center, new surgeons at Park City, Sanpete, and Sevier, and changes/additions to the SCIP measures that will require education and the full support of the surgeons.

Methodology: Rural facilities collect these measures on an ongoing basis, and they will be reviewed through the Rural Quality Team.

Measurement Time Period: Second and Third Quarters 2010

INTERMOUNTAIN HOMECARE

Overview & Opportunity: Traditionally, hospitals have focused on acute care, but in today's world, patient care has become increasingly chronic in nature, involving long term management needs for complex and multiple illnesses. Hospitals are not as well prepared to care for patients with chronic illnesses. Statistics show that the best place to care for these patients is in the home and within a system focused on chronic care. The goal of Homecare is to be the continuum provider for patients with chronic and complex illnesses by preventing re-hospitalizations and emergent care visits.

CMS has established publicly reported measures since 2000. These measures include monitoring acute care re-hospitalization rates and emergent care visits. Our clinical excellence goal for 2010 is to reduce our re-hospitalization rates and emergent care visit rates to improve quality and reduce healthcare costs.

2010 Goal for Intermountain Homecare

Reach improvement in Medicare's publicly reported Outcome Based Quality Indicators (OBQI) of both acute care re-hospitalization rates and emergent care visits. (Measurements will be based on raw numbers rather than risk adjusted.)

Entry Goal: 0.5% improvement
Target Goal: 1.0% improvement
Stretch Goal: 1.5% improvement

Clinical Challenges to Meet the Goal: The challenge in achieving this goal includes identifying best practices to reduce readmissions of a variety of diagnoses. Quality teams will then educate staff, implement new processes, monitor process changes, and evaluate outcomes.

Methodology: Monitor the requirements of acute care re-hospitalization rates and emergent visit rates monthly, with quarterly aggregation of each score through the McKesson Horizon

documentation system. Baseline measurements will be established the third quarter 2009. CMS is changing the Oasis data set in December 2009 and the risk adjusted formulas are unavailable.

Measurement Time Period: Third Quarter 2010