

**VII. STANDING COMMITTEES****A. Academic and Student Affairs**

*In Joint Session with*

**B. Finance, Audit and Facilities Committee**

Computerized Physician Order Entry System Project – Establish Project Budget and Delegate Authority to Award Contracts

RECOMMENDED ACTION:

It is the recommendation of the administration and the Finance, Audit and Facilities Committee that the President or the President's authorized representative be delegated authority to enter into appropriate contracts and related expenditures and to establish a total project budget not to exceed \$29,163,200 for acquisition and implementation of a Computerized Physician Order Entry system for UW Medical Center and Harborview Medical Center.

BACKGROUND:

UW Medicine began implementation of an electronic medical record (EMR) in 2002, in order to unify patient data from various paper and electronic sources, and to provide tools for documenting care, viewing results of tests, monitoring patient status, and ordering patient care interventions, supplies and services. Many of these objectives have been achieved through a series of project investments in the Online Record of Clinical Activity (ORCA); however, transition of clinicians' order management processes to the EMR has not yet been undertaken.

UW Medicine physicians and health care professionals at UW Medical Center and Harborview Medical Center currently write patient orders on the paper chart, which is then transcribed onto a paper requisition and transported to service departments such as Radiology or Pharmacy. The order goes through additional processing at the service department, sometimes by entry into separate department systems, before the request is fulfilled. Current processes for patient order management are inefficient, can be prone to error, and provide limited information about the profile and status of previously documented orders.

The proposed Computerized Physician Order Entry (CPOE) project has potential to decrease errors, facilitate best medical practices, strengthen regulatory compliance, and optimize business objectives, which will solve problems associated with the current paper-based orders management processes. Problems related to paper-based orders are universally known and have received national exposure in recent years. The federal government has included criteria in the American Recovery and Reinvestment Act of 2009 (ARRA) requiring use of

## VII. STANDING COMMITTEES

### A. Academic and Student Affairs

*In Joint Session with*

### B. Finance, Audit and Facilities Committee

#### Computerized Physician Order Entry System Project – Establish Project Budget and Delegate Authority to Award Contracts (continued p. 2)

CPOE, with specific targets between 2011 and 2015 that include financial incentives, and penalties starting in 2015 if CPOE is not achieved. ARRA incentives and penalties are based on Medicare and Medicaid volumes, and for UW Medicine, estimates of incentive payment opportunities for achieving CPOE targets range from \$10-18 million over the initial four years. Correspondingly, penalties would start around \$3 million and could exceed \$24 million by 2017.

UW Medicine's ORCA system is a suite of modules from the Cerner Corporation, acquired in 2002 at the start of EMR implementation. The currently licensed software includes CPOE functionality that supports: direct order entry and authentication by providers to eliminate interpretation or transcription errors; real-time alerts of contra-indications such as allergies, drug interactions, or duplicate orders; automated transmission of orders to the servicing departments and status of order fulfillment. Cerner's CPOE software can also incorporate existing paper-based standard order sets, which will promote order-entry efficiency and support standards of care.

A significant amount of effort to implement CPOE will go towards re-design of operational processes such as care delivery, order authorization workflow and service department delivery, and inpatient transfer and discharge processes. Because of the impact of CPOE on clinical practice throughout UW Medicine, the project steering committee includes the medical directors and chief nursing officers, the president of UW Physicians, director of pharmacy, and program director of clinical applications. The steering committee will utilize standing clinical practice and quality committees to assist in guiding the project and ensuring input.

UW Medicine has been working on the detail planning for CPOE in order to prepare a project investment plan for approval. Total project budget investment costs include:

Project staffing – internal salaries/benefits	\$ 14,218,700
Service contract with Cerner	4,898,700
Service contracts – other external providers	3,240,700

## VII. STANDING COMMITTEES

### A. Academic and Student Affairs

*In Joint Session with*

### B. Finance, Audit and Facilities Committee

#### Computerized Physician Order Entry System Project – Establish Project Budget and Delegate Authority to Award Contracts (continued p. 3)

Staffing / labor contingency	5,959,300
External contract vendor travel/expenses	783,800
Software license and maintenance	62,000
Total	\$ 29,163,200

In addition to project investment costs, five year operating costs for software licensing and maintenance and operations staff will total approximately \$13,700,880.

Project implementation plan is based on a 27 month schedule, with an additional six months for contingency. Project initiation is contingent on approval of the project investment plan by the Washington State Department of Information Services and the Information Services Board, which has oversight for information technology acquisitions by state agencies and institutions.

#### UW MEDICINE TECHNOLOGY PROJECTS

UW Medicine Information Technology Services (ITS) currently manages several IT projects to implement enhanced capabilities to support the medical centers:

- CHARMS – Replaces the legacy admissions-discharge-transfer and hospital billing system with standard software from Epic Corporation. Epic software has been used by UW Physicians Network for over ten years, and CHARMS expands its use for inpatients. Project was approved by Board of Regents in 2008 and is scheduled for implementation August 2010.
- Amalga Clinical Data Warehouse Project – A research pilot project successfully used a Microsoft product to query large, multiple data sources and provide real-time ad hoc reports. UW Medicine has approval from the Washington State Department of Information Services to implement Amalga for clinical, financial and operational data, to be used to support quality assessment, quality improvement, and administrative reporting for the medical centers. Project is in beginning phases, with implementation planned for mid-2012.

## VII. STANDING COMMITTEES

### A. Academic and Student Affairs

*In Joint Session with*

### B. Finance, Audit and Facilities Committee

#### Computerized Physician Order Entry System Project – Establish Project Budget and Delegate Authority to Award Contracts (continued p. 4)

- Epic hardware replacement - Washington State Department of Information Services will be asked to approve an investment plan to replace older equipment with new, more efficient servers. Having recently completed the opening of a new data center, in which the new Epic equipment will be housed, UW Medicine ITS staff are well prepared for this effort, scheduled to run to the end of 2011.

#### REVIEWS AND APPROVALS:

Funding for the CPOE costs is available from patient revenues and has been approved by the Harborview Medical Center Board and the UW Medicine Board. A determination that there are no significant impacts on institutional systems, resources or business practices was reviewed with the University's Information Technology leadership.

The Washington State Department of Information Services and the Information Services Board will consider this proposed investment plan once it is approved by the Board of Regents. This request has been approved by the Chief Executive Officer for UW Medicine, the Chief Technology Officer, the interim Vice President and Vice Provost for UW Information Technology, and the Senior Vice President.