



Using the UC-Davis Tethered Meta Registry to Improve the UCDMC Patient Blood Management System



Sarah Barnhard MD¹; Rebecca Sonu, MD¹; Carol Marshall, MD¹; Jeremy Parsons, MD^{1*}; Sharon Myers, PhD²; Larry Errecart²

¹Department of Pathology and Laboratory Medicine (*Former UCDMC Faculty); ²Clinical Registry Team; University of California-Davis Medical Center Sacramento, California

PATIENT BLOOD MANAGEMENT (PBM)

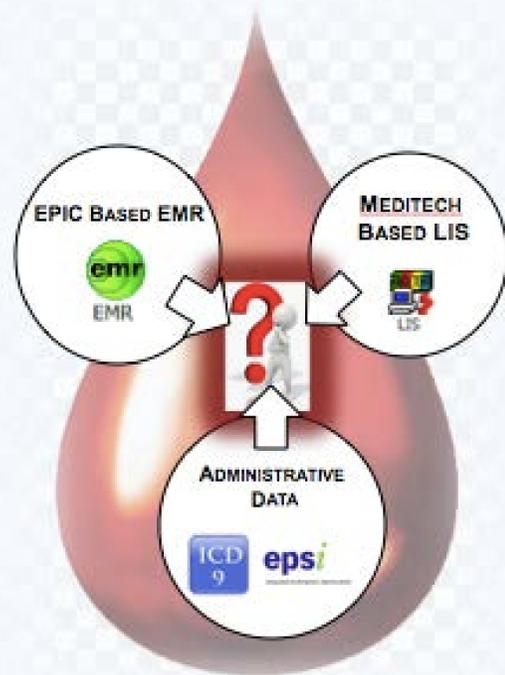
AN EVIDENCE-BASED, MULTIDISCIPLINARY APPROACH TO OPTIMIZING CARE OF PATIENTS WHO MIGHT NEED TRANSFUSIONS¹

COMPONENTS INCLUDE

BLOOD UTILIZATION REVIEW
BLOOD MANAGEMENT

PBM AT UC-DAVIS MEDICAL CENTER

PROBLEM: MULTIPLE DISPARATE DATA SOURCES



CAN THE BLOOD UTILIZATION DATA ELEMENTS BE LINKED?

YES!

PROBLEM SOLUTION:

- COLLABORATE WITH THE UC-DAVIS CLINICAL REGISTRY TEAM
- HARNESS THE POWER OF THE UC-DAVIS TETHERED META REGISTRY (TMR) (FIGURE 2)
- CAPTURE AND SYNTHESIZE DATA SOURCES

A NEW TOOL: THE UC-DAVIS TRANSFUSION REGISTRY (FIGURE 1)



Fig. 1: As a component of the UC-Davis TMR, the transfusion registry (TR) was built using a robust, automated algorithm linking data elements from EMR to those from the LIS and administrative (coded) data.

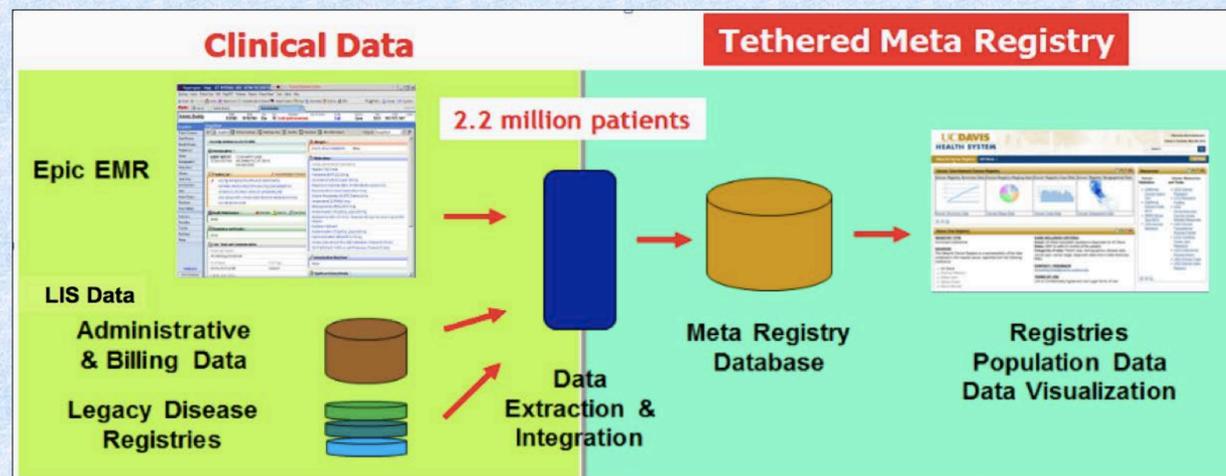


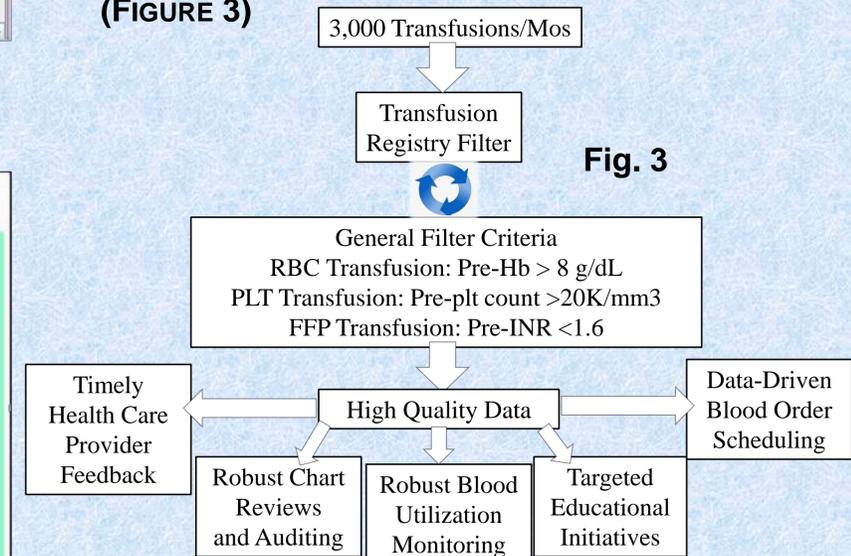
Fig. 2: The UC-Davis Tethered Meta Registry enables the creation of multiple registries with high data quality at low cost. It creates a centralized data set used to populate all registries and is an integrated source of curated population data for clinicians, researchers, and administrators.

TRANSFUSION REGISTRY CAPABILITIES:

- MONITORING HEALTH-SYSTEM-WIDE BLOOD PRODUCT UTILIZATION INCLUDING MASSIVE TRANSFUSIONS
- REVEALING CASES OUTSIDE HOSPITAL GUIDELINE LABORATORY 'TRIGGER' VALUE
 - BY BLOOD PRODUCT
 - BY PATIENT SERVICE CATEGORY
 - BY INDIVIDUAL ORDERING PROVIDER
 - BY INDIVIDUAL PATIENT
- TRENDING BLOOD PRODUCT USAGE BY SURGICAL PROCEDURE
- EXPORTING DETAILED SPREADSHEETS OF CLINICAL SERVICE AND ORDERING PROVIDER USAGE FOR FURTHER ANALYSIS

USING THE TR TO IMPROVE PBM AT UCDMC:

- THE TR IS A ROBUST AND EFFICIENT TOOL TO MONITOR BLOOD TRANSFUSION ORDERING PRACTICE AND HELP DISSEMINATE BEST PRACTICES IN TRANSFUSION MEDICINE
- IT HAS IMPROVED THE PBM SYSTEM AT UCDMC (FIGURE 3)



THE TRANSFUSION REGISTRY LEVERAGES UC-DAVIS' INVESTMENT IN HEALTH IT TO

- STANDARDIZE DATA COLLECTION AND REPORTING
- PRODUCE A CLINICALLY USEFUL TOOL
- ENSURE PROCESS QUALITY MEASUREMENT AND IMPROVEMENT

1. AABB PBM Definition. Online at <http://www.aabb.org/pbm> Accessed 10/9/14