Transitions of care present a major challenge for hospitalized veterans. In spite of the establishment of widely accepted Best Practices, up to one half of veterans being discharged from an acute care facility will experience an adverse medication-related event and/or be readmitted within 30 days of leaving the hospital. The reasons for this breakdown in care span a multitude of factors, including complex care coordination, errors in medication reconciliation, inefficient and inaccurate physician-to-physician information transfer, and deficiencies in follow up (patient non-compliance with physician follow up, diagnostic tests, etc.). **As such, these transitions represent a period of significant vulnerability for veterans as they traverse the VA healthcare system.**

Although tools such as discharge bundles prioritize team-based care coordination and standard work through checklists, **important gaps in quality and safety still exist in the domain of inpatient discharges and transitions of care**. For instance, the safe release of a veteran from the hospital often hinges on the discharge summary, a free text document that frequently serves as the primary means to: (1) relay information to outpatient care teams, (2) establish a timeline for necessary testing and follow up with physicians in the outpatient setting, and (3) frame key pending issues (follow up of inpatient biopsy/culture results, etc.). Yet, the hospital discharge summary exists as a complex, unstructured document in the electronic medical record (EMR) that does not integrate in real time with any system of checks and balances that supports transitions of care.

Natural language processing (NLP) holds tremendous potential as a tool that can address specific, important gaps in transitions that center on care coordination and information transfer through the discharge summary. Leveraging existing algorithms, an NLP-driven clinical tool could potentially annotate, structure, and extract vital information from a complex discharge summary. This information extraction could, in turn, generate actionable alerts that facilitate efficient, timely, and appropriately-prioritized transfer of information from inpatient to outpatient care teams. In an ideal future state, an NLP-driven tool would scan a lengthy, complicated summary in order to annotate, structure, and extract the key issues for a safe discharge: (1) the timing of follow up appointments, (2) necessary outpatient testing, (3) pending tests that require timely follow up (biopsies, cultures, radiology reports etc., and (4) medication reconciliation. The information extracted would then be cross referenced with other structured data in the EMR to identify discrepancies and provide concise, timely alerts to the outpatient care team or discharge coordinators to ensure close follow up. Support of operationalizing a NLP tool that serves these functions strongly aligns with VA initiatives to provide veteran-centered care in a timely fashion, thereby improving access and outcomes. Invested stakeholders locally at the VA Palo Alto Healthcare System in VISN 21 include : (1) Dr. Keith Posley, Associate Chief of Staff for Acute Care, (2) Dr. Mary Goldstein, Chief of Medical Service, (3) Dr. Marianne Yeung, Chief Hospitalist Section, (4)Nazima Allaudeen, Director of Quality and Safety, and (5) Dr. Nancy Plauth, Director of the General Medicine Clinic.