



# Optimizing the Electronic Health Record (EHR) to Implement Evidence-Based Practice for Early Identification and Targeted Discharge Planning

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## Background

Centers for Medicare and Medicaid (CMS) conditions of participation require hospitals to screen all inpatients for discharge needs at an early stage of hospitalization.<sup>2</sup>

Collaboration with Care Management (CM) team identified:

- A lack of standardized screening process to identify discharge needs
- The process relied on subjective interpretation which often led to late identification and initiation of discharge planning
- Late initiation of discharge planning impacts:
  - Patient/family engagement<sup>8</sup>
  - Patient satisfaction<sup>8</sup>
  - Length of stay (LOS)<sup>5</sup>
  - Readmissions<sup>4, 5, 8</sup>
  - Care Management staff<sup>7</sup>

Mayo Clinic Enterprise convergence to standardize early discharge planning screening process

The (Early Screen for Discharge Planning) ESDP is an evidence-based tool, proven to be effective in identifying patients who require discharge planning intervention and allows for appropriate allocation of discharge planning resources.<sup>6, 7</sup>

## Goal

Utilize the EHR to implement and automate a predictive discharge planning tool for early identification of discharge needs in order to mitigate discharge barriers, improve patient engagement and satisfaction, shorten of length of stay, and reduce readmissions.

## Methods

- Discharge planning section modified within hospital nursing admission assessment incorporating the four ESDP assessment questions
- Elements of the ESDP are mandatory fields in nursing documentation
- Assessment pulls the age from patient demographics and auto-calculates a score as documentation is completed
- ESDP score of 10 or greater triggers an automated consult and creates a task on the CM department task list
- Existing EHR processes and reports were evaluated to determine impact of ESDP calculation
  - Created and revised CM reports
  - Updated hospital readmission risk score rule

## Figure 1: Old EHR Assessment

## Figure 2: ESDP Assessment

<b>Self-rated Walking Limitation</b>	Yes = 3 Points	
<b>Age</b>	Age in years: _____	18-44 years = 0 points 45-64 years = 4 points 65-79 years = 6 points 80+ years = 8 points
<b>Prior Living Status</b>	_____ Alone: In own home (house or apartment) = 3 points	
<b>Rankin Disability Score</b> (This is an assessment question, not self-reported from the patient)	(Check One) ____ (1) No significant disability = 0 points ____ (2) Slight disability = 3 points ____ (3) Moderate or greater disability = 9 points	

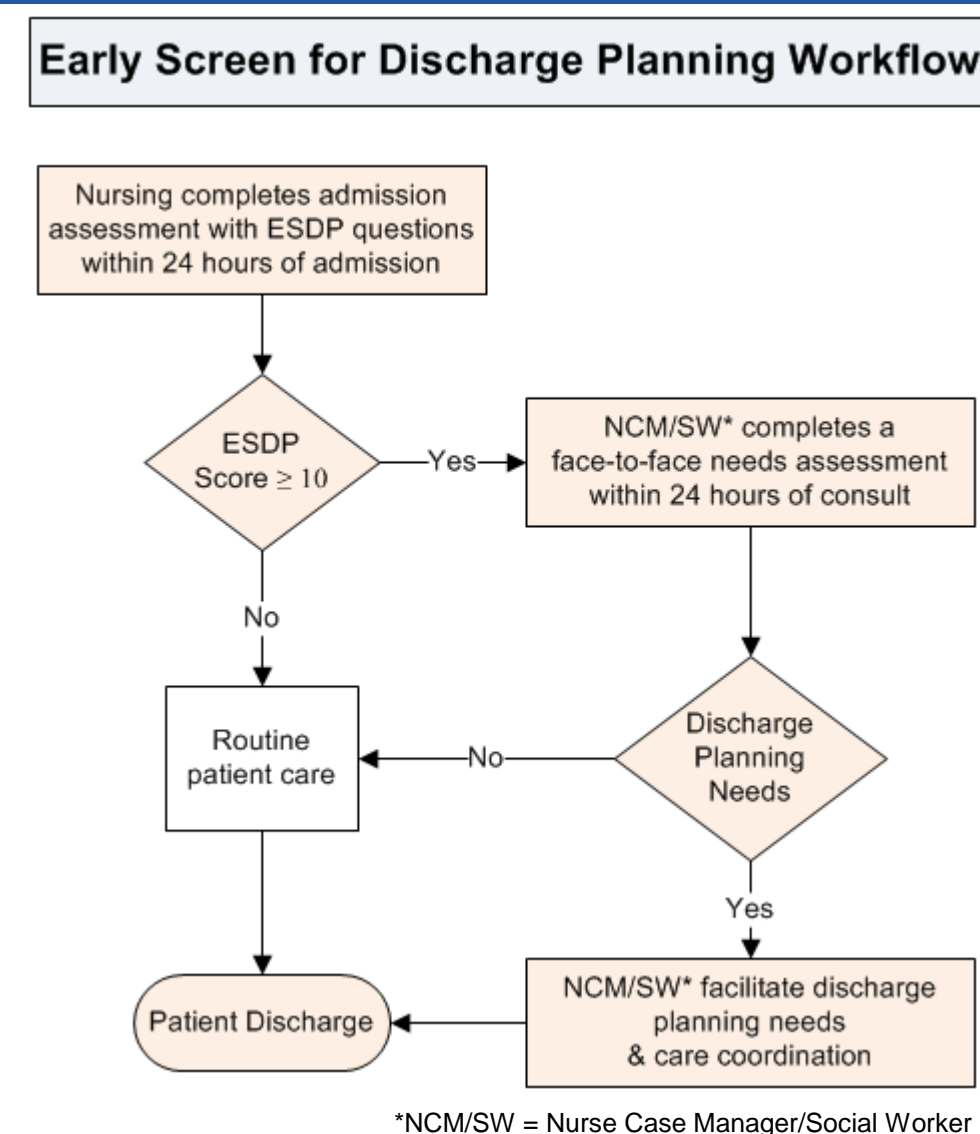
Permission granted by Diane E. Holland, Ph.D., R.N.

## Figure 3: New EHR Assessment

## Implication for Practice

- Optimizing the use of available functionalities within the EHR facilitates the implementation of an evidence-based practice (EBP) tool:
- Allowing for early identification of discharge needs; improving allocation of Care Management resources<sup>1, 7</sup>
- Early initiation of discharge planning:
  - Ensures the patient is discharged to the appropriate level of care<sup>3</sup>
  - Increases patient/family engagement & satisfaction<sup>8</sup>
  - Mitigates discharge barriers<sup>1</sup>
  - Decreases length of stay<sup>5</sup>
  - Decreases readmissions<sup>1, 4, 5</sup>

## Figure 3: ESDP Workflow



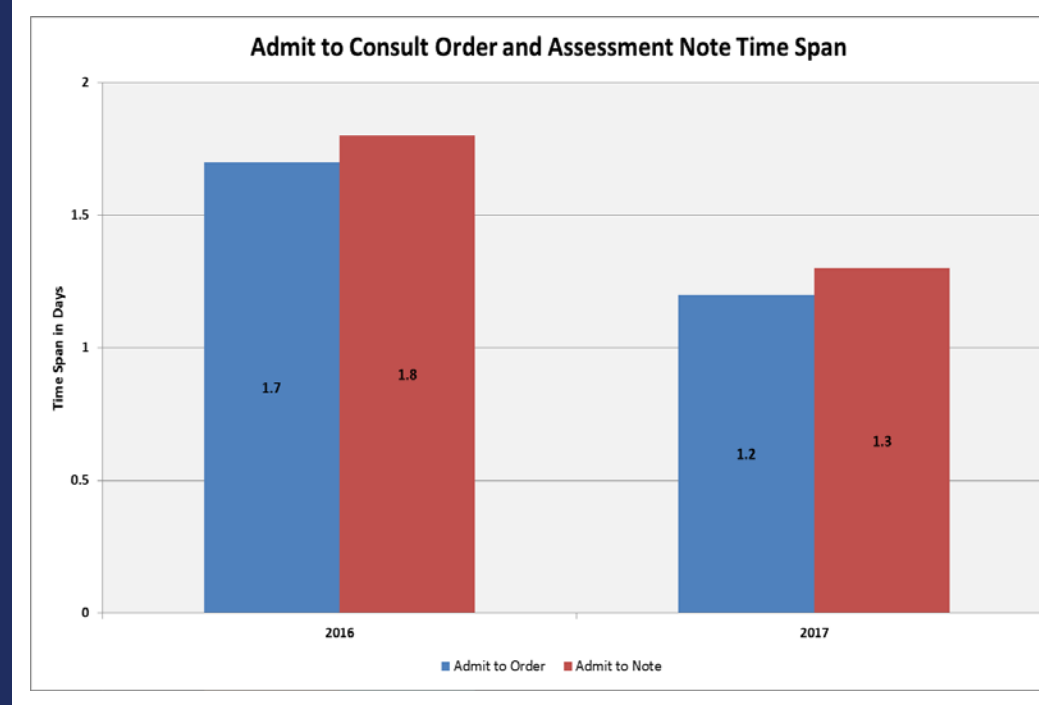
## Table 1: ESDP Sensitivity

Post- ESDP	Q2 2017	Q3 2017	Q4 2017
Count of patients with >=10	1044	1033	1120
Need for CM Interventions	849	806	827
Percentage	81.3%	78.0%	73.8%

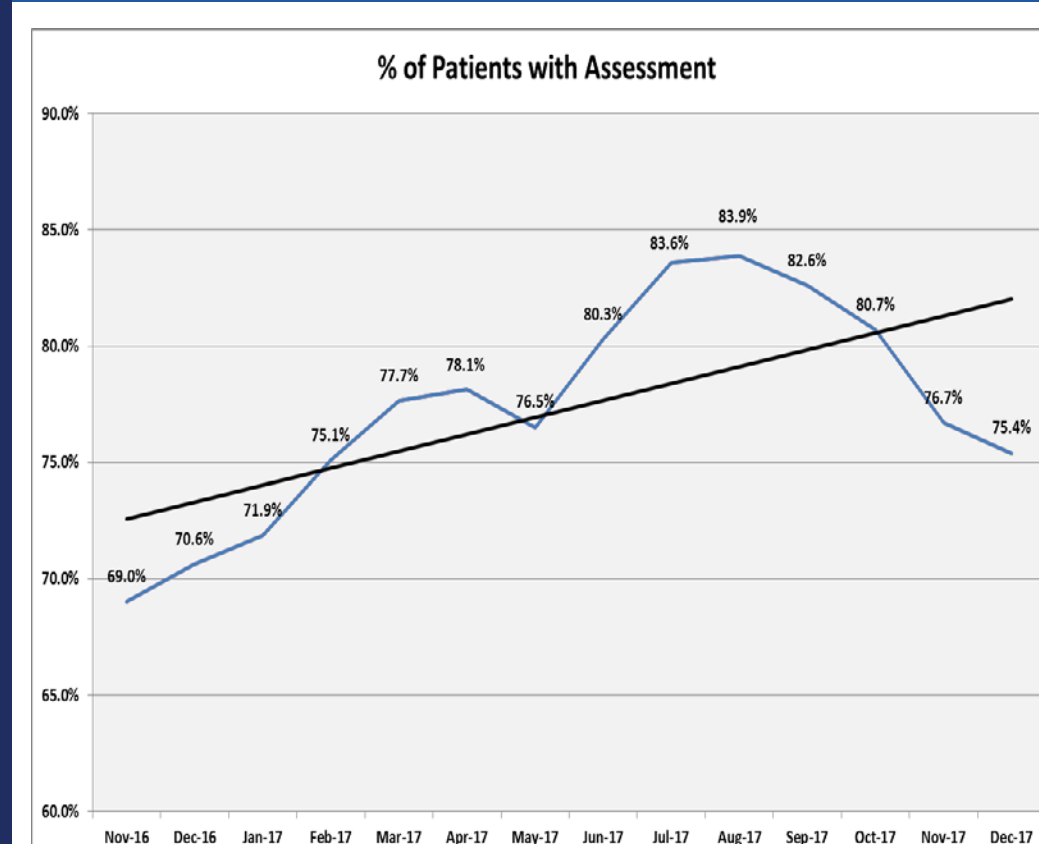
## Outcomes

- The initial ESDP study demonstrated a score of 10 or greater has a 79% sensitivity to identify patients with discharge planning needs. Our results are consistent with the study. (Table 1)
- Improvement in initiation of early discharge planning. Decrease in time from admission to CM consult and CM assessment by 0.5 days. (Graph 1)
- Data demonstrates an increase of 9.3% in the number of patients that CM was able to assess for discharge planning needs. (Graph 2)
- CM staff report an improvement in receiving more appropriate consult orders

## Graph 1



## Graph 2



## Summary

- Utilizing an automated EBP tool provides a reliable method of identifying patients likely to have discharge needs
- Screening all patients on admission allows Care Management staff to prioritize assessments & initiate discharge planning process sooner in the hospital stay, improving continuity of care
- Identifying patients with discharge needs through the use of the ESDP score provides for better allocation of CM resources
- Collaboration between nursing informatics and clinical partners improves the efficiencies of patient care delivery
  - Assessment and guidance in the selection of appropriate EHR solutions considering system functionalities and clinical needs
  - Evaluate and identify impact of EHR changes to clinical practice, workflows, and patient care
  - Coordinate the design, build, validation, and implementation of required and related changes in the EHR
- Nursing informatics plays an important role in improving the quality of patient care and patient outcomes by providing ongoing data analytics support
  - Staff compliance in addressing consult orders and EHR documentation
  - Metrics associated with the impact of the implementation of ESDP

## Next Steps

- Continued collaboration with Care Management to:
- Monitor the impact of the ESDP on LOS and readmission rates
  - Evaluate discrepancies between ESDP less than 10 & patients with discharge needs
  - Determine value of utilizing ESDP tool for pre-surgical patients

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