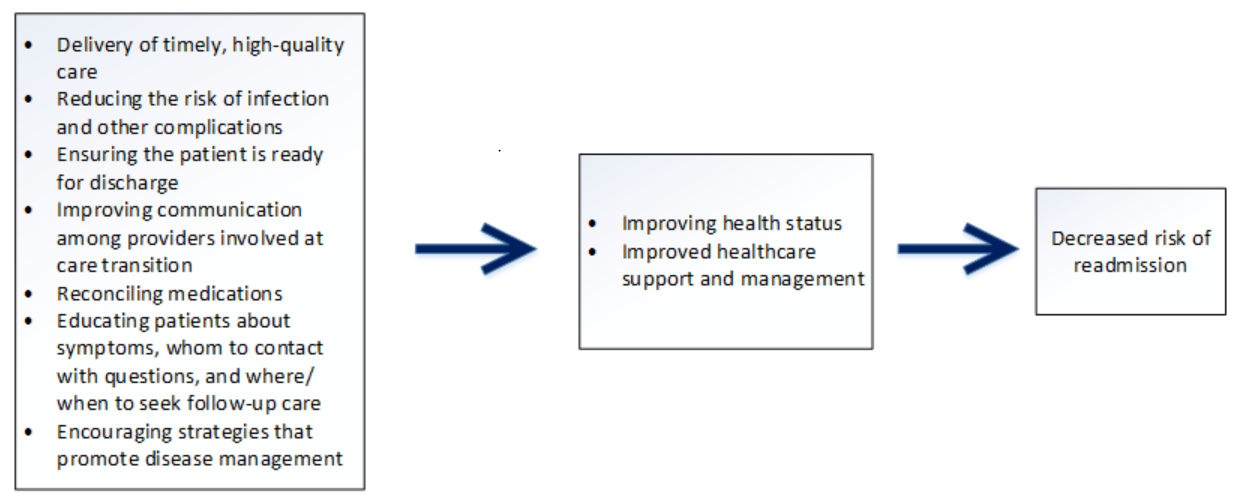
AMI Readmission Attachment 1: Summary of Empirical Evidence

AMI is among the most common principal hospital discharge diagnoses among Medicare beneficiaries, and, in 2013, it was the fifth most expensive condition treated in US hospitals, accounting for 3.5% of national healthcare costs (Torio et al., 2016). Readmission rates following discharge for AMI are high and variable across hospitals in the United States (Krumholz et al., 2009; Bernheim et al., 2010). For example, for the time period of July 2015-June 2018, publicly reported 30-day risk-standardized readmission rates ranged from 12.0% to 21.9% for patients admitted with AMI (Wallace et al., 2019).

Figure 1: AMI Logic Model



The diagram above indicates some of the many care processes that can influence readmission risk. In general, randomized controlled trials have shown that improvement in the following areas can directly reduce readmission rates: quality of care during the initial admission; improvement in communication with patients, their caregivers and their clinicians; patient education; predischarge assessment; and coordination of care after discharge. Evidence that hospitals have been able to reduce readmission rates through these quality-of-care initiatives illustrates the degree to which hospital practices can affect readmission rates. Successful randomized trials have reduced 30-day readmission rates by 20-40% (Coleman et al., 2004; Courtney et al., 2009; Garasen et al., 2007; Koehler et al., 2009; Mistiaen et al., 2007; Weiss et al., 2010; Krumholz et al., 2002), and trends over the last 20 years show marked improvement in AMI readmissions among older adults (Krumholz et al., 2019). The Project RED (Re-Engineered Discharge) intervention, in which a nurse was assigned to each patient as a discharge advocate, responsible for patient education, follow-up, medication reconciliation, and preparing individualized discharge instructions sent to the patient’s primary care provider and there was a follow-up phone call from a pharmacist within 4 days of discharge demonstrated a 30% reduction in 30-day readmissions (Jack et al., 2009, Patel et al., 2018). Another study found that transitional care models prioritizing effective collaboration across providers/facilities, through follow-up calls, patient tracking through medical charts, and team communication within and across facilities/providers, may reduce readmissions after AMI and other conditions (Radhakrishnan et al., 2018). Other specific interventions among patients with AMI that have been shown to significantly reduce the rate of readmission include disease management programs that involved home visits by cardiac-trained nurses, standardized checklists, communication with physicians, and patient education. Similarly, in observational studies, enrollment in cardiac rehabilitation programs has been found to be associated with significant reductions in readmission after AMI (Mudrick et al., 2013).

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