

# Readmissions NEWS

## Using Artificial Intelligence to Reduce Readmissions

by *Sujay Kakarmath, MD MS and Kamal Jethwani, MD MPH*

**R**educing readmissions has been a formidable challenge and a top priority for many US hospitals since the inception of the Hospital Readmissions Reduction Program. Significant effort and resources have since been directed to developing multi-faceted interventions for inpatients determined to be at high-risk for readmissions. However, reduction in readmissions over the past 5 years has been modest at best. Considering the cost incurred in delivering resource intensive interventions to reduce readmissions, hospitals have been looking for ways to fine tune their efforts.

One of the lowest hanging fruits has been to improve the accuracy of risk prediction models used to identify high-risk patients. In the early years after implementation of HRRP, most hospitals went for simple approaches that were ideal for busy clinicians and used risk prediction models that required at most 5 variables to generate a risk score for every inpatient. This was not necessarily due to a dearth of more accurate risk prediction models.

More than 90 readmission risk prediction models have been developed and validated in the past three decades. Some of these use as many as 90 variables to generate a prediction score. Naturally, there has always been a trade-off between model accuracy and ease of implementation. This is by no means the only factor hospitals have had to consider when adopting risk prediction models. A second, seemingly innocuous problem, has been that of the timing of availability of data inputs required for risk prediction.

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## SDOH in Reducing Readmissions – New perspective

by *Anton Berisha, MD, and Kathy Mosbaugh*

### Background

**T**he CMS' Hospital Readmissions Reduction Program (HRRP) has recently come under scrutiny as the progress in reducing readmissions and associated costs came to a standstill. As a result, about 75 percent of eligible US hospitals are being penalized with up to 3 percent cuts to their Medicare payments.

This reminds me of a conversation from a few years ago, when a CMO of a prominent academic medical center – while claiming that he has done everything possible from the clinical recommendations standpoint to curb the readmit rates – said he can tell if a patient is discharged and going back to certain neighborhoods, that chances of being readmitted within next 30 days are very, very high. At that time, we weren't able to measure or validate his assertion, but what is important is that his perception supported that social determinants of health (SDOH) may be a significant driver of 30-day readmissions even more so than clinical conditions.

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