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NUS launches a risk predicting calculator

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Researchers from the National University of Singapore (NUS) have developed a web-based tool that predicts a patient's 15-day readmission risk by analysing various risk factors.

The tool was tested using data from 621 patients who had been discharged from the Singapore General Hospital and Khoo Teck Puat Hospital Singapore between August and September 2015.

Studies have shown that early readmission (within seven days or less) is more likely to be causally related to the preceding admission episode and is more likely to be prevented through risk modification. Late readmissions, on the other hand, are

more likely to be associated with morbidities and social determinants, and therefore less likely to be amenable to intervention by providers.

Some 15 percent of patients in Singapore are at high risk of being readmitted within 30 days from hospital discharge, while globally, readmission rates can be as high as 20 percent.

Researchers used 15-day readmissions because studies have shown it is the optimal cut-off for identifying preventable readmissions. The online tool calculates the likelihood of readmission based on several risk factors, such as age, presence of presence of pre-existing conditions, number of discharge medications, discharge destination, and evidence of premature discharge against medical advice.

The study found that the number of medications prescribed at discharge was closely linked with 15-day readmission risk, since each additional medication prescribed correlates to a 6-percent increase in the risk for readmission within 15 days.