



# 14<sup>th</sup> SINGAPORE PUBLIC HEALTH & OCCUPATIONAL MEDICINE CONFERENCE

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## PREVENTIVE HEALTH IN A CHANGING WORLD

### NOROVIRUS IN A HOSPITAL WARD WITH COMMUNAL FACILITIES

Chan, Hwang Ching<sup>2</sup>, Sridhar, Revathi<sup>2</sup>, Bagdasarian, Natasha<sup>1</sup>

<sup>1</sup> National University Hospital, NUHS Tower Block 1E Kent Ridge Road Level 10, Singapore 119228, Singapore

<sup>2</sup> National University Hospital, Kent Ridge Wing Level 6, Infection Prevention Office 5 Lower Kent Ridge Road, Singapore 119074, Singapore

#### **Background**

The National University Hospital (NUH) is an academic medical centre in Singapore with 1,250 inpatient beds. In June 2017, two 37-bed inpatient, rehabilitation wards at another site came under the management of the NUH, and received patients from NUH requiring rehabilitation. The infrastructure of these two wards was adopted from previous occupants, and featured wide open areas, and shared spaces including rehabilitation/gym facilities, as well as communal activity and dining areas. Communal activities, such as dining, were encouraged between the two wards. Each ward was single-gender, with a single shared bathing and toilet facility for each ward. The wards were embedded within a hospital campus, belonging to another health system, and services such as portering and food-services were provided by this health system.

#### **Methods**

On 17th October 2017, Infection Prevention was alerted to cases of gastroenteritis in 8 patients, and 4 staff members, on one of these rehabilitation wards. The clinical and epidemiologic profile of the outbreak satisfied Kaplan's criteria, and appropriate infection prevention interventions were immediately put in place.

#### **Results**

A total of 13 norovirus cases were confirmed: 10 patients, and 3 staff members, giving an attack rate of 50% and 3%, respectively. However an additional 23 staff members reported gastrointestinal symptoms without confirmation of norovirus.

#### **Conclusion**

Despite unique challenges in infrastructure, communal facilities, a model of care that encouraged communal activities between wards, and location of the affected ward on the campus of another healthcare facility; prompt and effective infection prevention measures contained the outbreak, and halted transmission within 7 days.