COVID-19 Know-How: Assessing Levels of COVID-19 Knowledge amongst Doctors Working in St. Vincent's University Hospital

David L. McCormack, Sinead Rowe, Ian Callanan, Neil Wrigley-Kelly, Patrick Mallon, Susan Fitzgerald, Rosa McNamara, Alan Watson, Eoin Feeney, Sarmad Waqas

St. Vincent's University Hospital, Dublin, Ireland

Introduction

As of the 16th of October 2020, there have been 46,427 confirmed cases of COVID-19 and 1,852 COVID-19 related deaths in Ireland[1]. The dynamic and profound effects of COVID-19 on the Irish health service are mirrored by the equally dynamic progression of COVID-19 research. We aimed to assess how well best practice guidelines, derived from up to date COVID-19 research, have permeated the knowledge base of doctors working in St. Vincent's University Hospital (SVUH) Dublin.

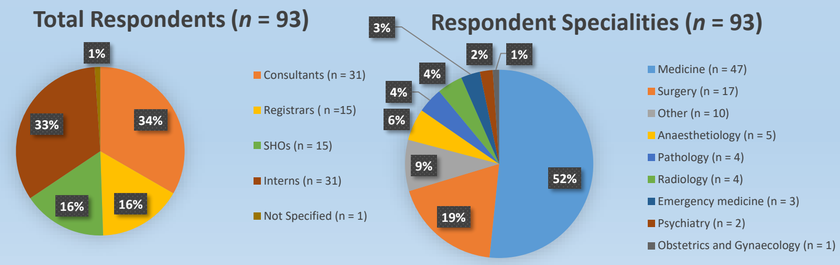
Methods

A 13 question true/false web-based questionnaire was distributed to all doctors working in SVUH over a 3-day period in the third week of September 2020. The results from this questionnaire were collated and analysed using Le sphinx MEA software.

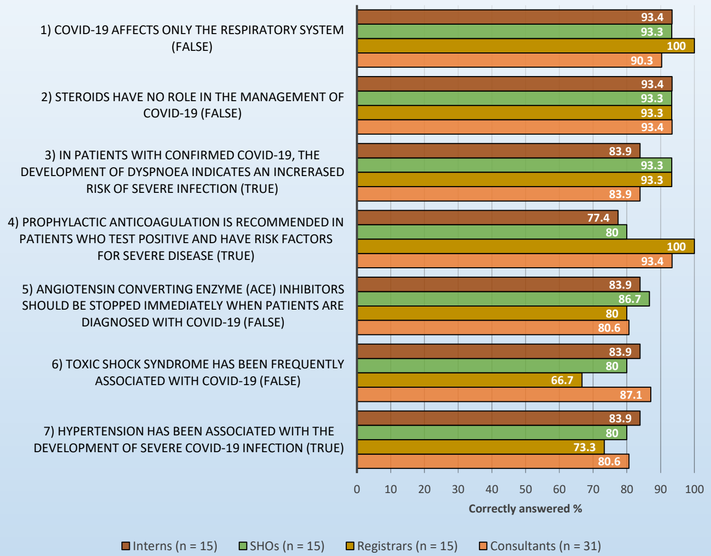
Results

Demographics:

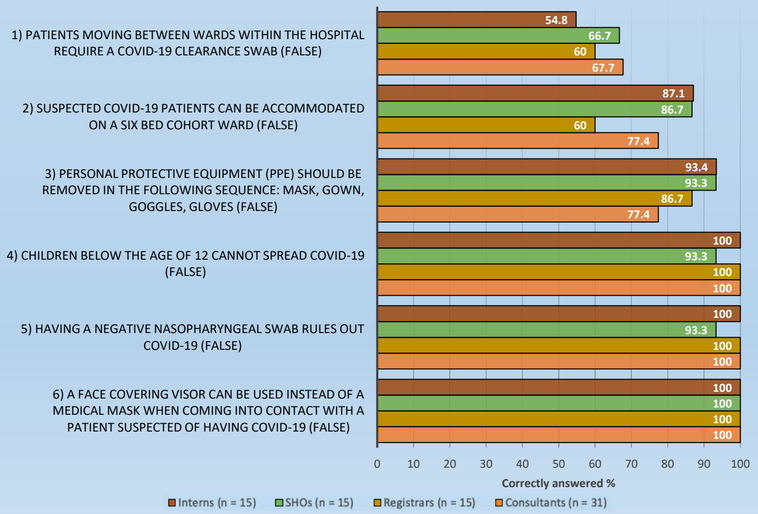
A total of 616 doctors work in SVUH, 255 of these are consultants and 361 are non-consultant hospital doctors. Overall, 93 responses were obtained during the three-day period (15%). Interns (*n* = 31) and consultants (*n* = 31) both accounted for 33.3% of respondents, while senior house officers (SHOs) (*n* = 15) and registrars (*n* = 15) both accounted for 16.1%. One respondent did not specify their grade.



Clinical Features and Medical Management:



Non-pharmalogical Interventions



Overview:

Overall, doctors in SVUH demonstrated an adequate level of knowledge about COVID-19. A total of 1209 individual questions were answered, of these 87% were answered correctly (*n* = 1052). The questions included in the survey were subdivided into two categories. The first category examined the clinical features and medical management of COVID-19, while the second category examined knowledge of the non-pharmalogical interventions (NPIs), employed to limit the spread of COVID-19. Questions related to NPIs (87.8% correct, range 62.4%-100%) were answered with slightly greater accuracy than those related to the clinical features and medical management of COVID-19 (86.3% correct, range 79.6-93.5%).

Differences in COVID-19 knowledge between grades of doctors:

The variance in COVID-19 knowledge between different grades of doctors was minimal. The question answered with the greatest accuracy asked if "a face covering visor can be used instead of a medical mask when coming into contact with a patient suspected of having COVID-19", all respondents (*n* = 93) in all grades correctly answered that this was false (100%). Conversely, the question, "patients moving between wards within the hospital require a COVID-19 clearance swab" was answered with the least accuracy (54.8-67.7%) by all four grades of doctor. The question regarding the appropriate sequence for the removal of PPE was answered more accurately by junior doctors, with interns recording 93.4% accuracy, SHO's 93.3%, registrars 86.7% and consultants 77.4%.

Conclusions

Aside from using the questionnaire as an assessment tool, we also sought to use it as an educational resource. An answer key was provided to all doctors working in SVUH upon closure of the questionnaire. Recruiting large numbers of doctors to complete surveys is always challenging. However, we feel questionnaires such as this, are easy to distribute, can be altered quickly in response to changing circumstances and emerging research and provide large volumes of useful data. Therefore studies such as ours can play an important role in responding effectively to the challenges posed by the ongoing pandemic.

References:

1) Ireland's COVID-19 Data Hub. Government of Ireland: Dublin, 2020. https://covid19ireland-geohive.hub.arcgis.com/