



NCID MONTHLY RESEARCH MEETING:

*BRINGING PEOPLE TOGETHER,
BRIDGING SCIENCE AND MEDICINE*

23 Apr 2021 | Friday | 11.00 am – 12.30 pm

About the Meeting

Our research meetings are held every 3rd Friday of the month, with the aim to:

- 1) Inspire research ideas and participation
- 2) Provide guidance on research studies
- 3) Foster research collaborations

Who should attend

All who are interested in research are welcome to attend.

To register

This will be a Zoom meeting.
Please register using the link or QR code below.

<http://tiny.cc/apresearchmeeting>



PROGRAMME

- 11:00 AM “The INVEST randomised trial: Early stepdown to oral antibiotics for uncomplicated Gram-negative bacteraemia”
by **A/Prof David Lye**
Director of Infectious Disease Research and Training Office, NCID
- 11:30 AM “Is cefazolin effective for non-MDR *Klebsiella pneumoniae* bacteraemia?”
by **Dr Russel Lee**
Research Fellow, NCID
- 12:00 PM “Effect of a popular web drama video series on HIV/STIs testing among gay, bisexual and other men who have sex with men in Singapore: a community-based, pragmatic, randomized controlled trial”
by **Dr Rayner Tan**
Postdoctoral Fellow, Saw Swee Hock School of Public Health, NUS

***CME/CPE points will be awarded**



The INVEST randomised trial: Early stepdown to oral antibiotics for uncomplicated Gram-negative bacteraemia

by A/Prof David Lye

Director of Infectious Disease and Research Training Office, NCID

Majority of patients with Gram-negative bacteraemia initially receive IV antibiotic therapy. It remains unclear whether patients can step down to oral therapy after an appropriate clinical response has been observed without compromising outcomes. The advantages of oral therapy over IV therapy are evident. Oral therapy eliminates the risk of catheter-associated adverse events, improves patient quality of life, and reduces hospital length of stay and medical costs. We have been awarded a ~\$1.5 million clinical trials grant to study this topic starting in Oct 2021.

3 Learning Points

1. This is an international, multicentre, randomised controlled, open-label, phase III trial.
 2. The aim is to evaluate clinical efficacy and economic impact of early oral step-down therapy versus continuing IV therapy for uncomplicated Gram-negative bacteraemia.
 3. We hypothesise that oral therapy is non-inferior to IV therapy for 30-day mortality outcome and health resource/service utilisation costs will be significantly lower in the oral therapy group.
-



Is cefazolin effective for non-MDR *Klebsiella pneumoniae* bacteraemia?

by Dr Russel Lee

Research Fellow, NCID

Ceftriaxone is the preferred treatment for bacteraemia caused by non-MDR *Klebsiella pneumoniae*. Excessive ceftriaxone use creates selection pressure for ESBLs. Cefazolin is an alternative, although there are theoretical concerns that SHV-1 β -lactamase in *K. pneumoniae* may inactivate cefazolin in an inoculum-dependent manner. We retrospectively investigated the outcomes in *K. pneumoniae* bacteraemic patients treated with IV cefazolin versus IV ceftriaxone as definitive therapy.

3 Learning Points

1. Prescription practices varied among hospitals in Singapore. Majority of patients from TTSH received cefazolin, whereas majority from SGH and all from NUH received ceftriaxone.
 2. Both in the crude unadjusted analysis and using a multivariable logistic regression model with IPTW based on propensity score, cefazolin treatment was not associated with increased risk of 28-day all-cause mortality.
 3. Cefazolin may be a ceftriaxone-sparing alternative treatment for non-MDR *K. pneumoniae* bacteraemia. Study limitations will be discussed.
-



Effect of a popular web drama video series on HIV/STIs testing among gay, bisexual and other men who have sex with men in Singapore: a community-based, pragmatic, randomized controlled trial

by Dr Rayner Tan

Postdoctoral Fellow, Saw Swee Hock School of Public Health, NUS

The study is an online-only, pragmatic, randomized controlled trial to evaluate a popular web drama video series developed by a community-based organization in Singapore for GBMSM. Primary outcomes included changes in self-reported intention to test for, actual testing for, and regularity of testing for HIV, Syphilis, Chlamydia or Gonorrhoea, while secondary outcomes include changes in a variety of other knowledge-based and psychosocial measures at the end of the study period.

3 Learning Points

1. Online-only RCTs are possible with relatively low attrition rates
2. Video-based interventions improve intentions to test; warrant further study
3. Intervention shows promise for wide-scale testing when coupled with HIV and other STIs self-testing