
Critical appraisal workshop

Dr Renata Kukuruzovic

Paediatrician

Department of General Medicine

Royal Children's Hospital, Melbourne

Objectives

- How to critically appraise a therapy paper using the GATE* framework
 - Interactive and hands on session
 - Tools to explore and/or teach EBM
 - *GATE framework- Rod Jackson, Dept of Epidemiology, University of Auckland NZ
-

Clinical scenario

- 2 year old child with one day of vomiting (6 vomits) and diarrhoea presents to the emergency department
 - Clinically has mild dehydration
 - Mother would like to know if a medication could be given to her child to reduce vomiting so that oral fluids could be kept down
-

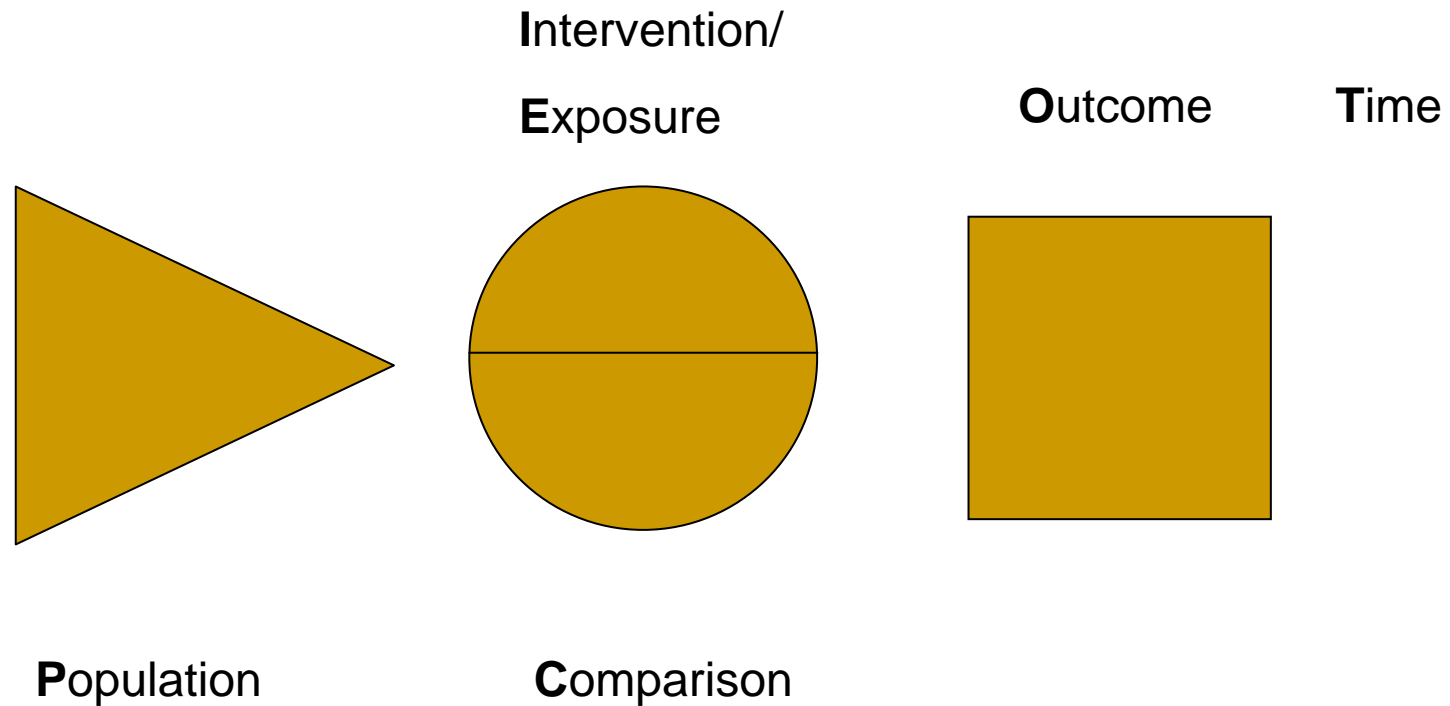
PICOT(PECOT)

- **P**opulation
 - **I**ntervention/**E**xposure
 - **C**omparison
 - **O**utcome
 - **T**ime
-

PICOT.....(PECOT)

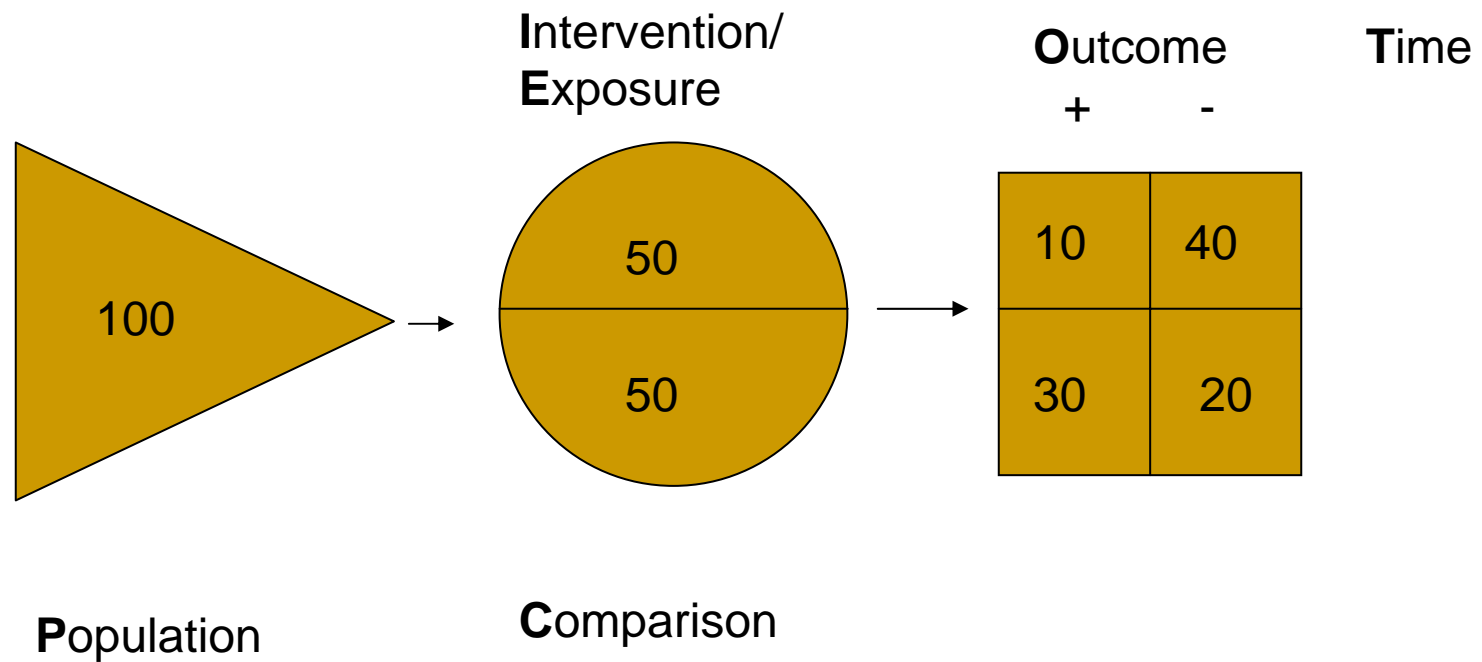
- **P**opulation- *children with gastroenteritis*
 - **I**ntervention/**E**xposure- *anti-emetic*
 - **C**omparison- *placebo*
 - **O**utcome- *reduce vomiting, hospitalization, and/or IV or NG insertion*
 - **T**ime- *during acute illness*
-

The GATE frame-critical appraisal with pictures PICOT (PECOT)

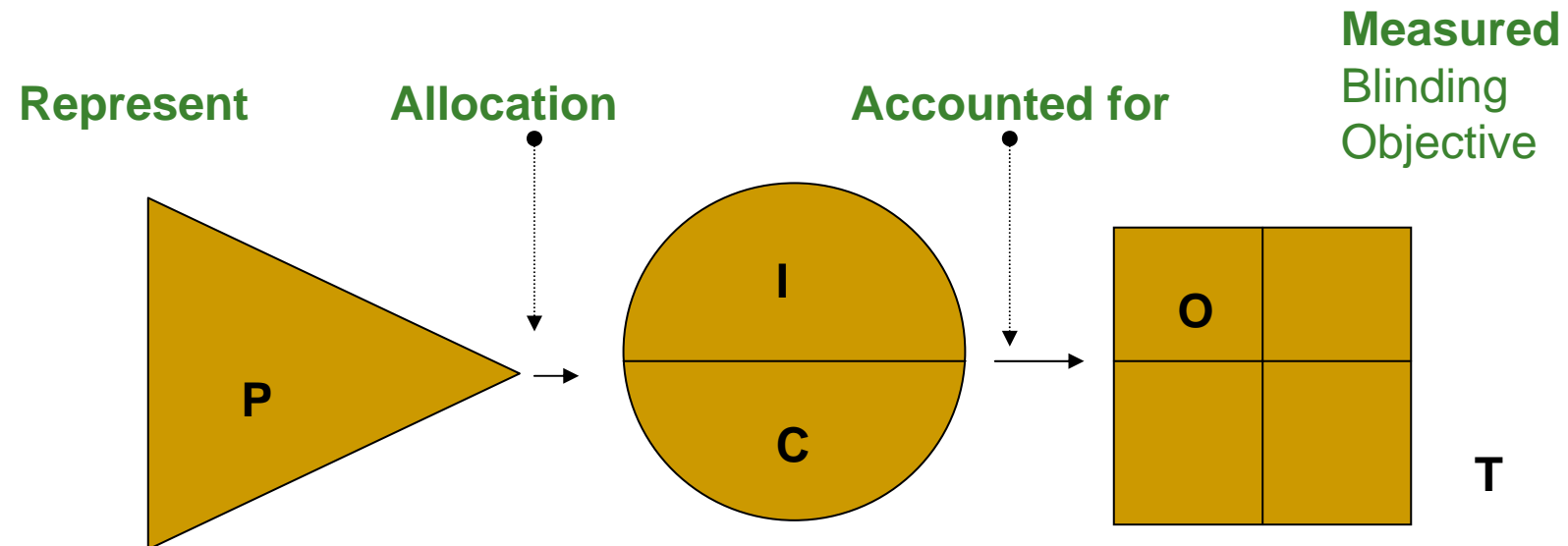


Hanging the study numbers on the GATE FRAME

Study: *Use of elastic stockings to prevent DVT on long haul flights*

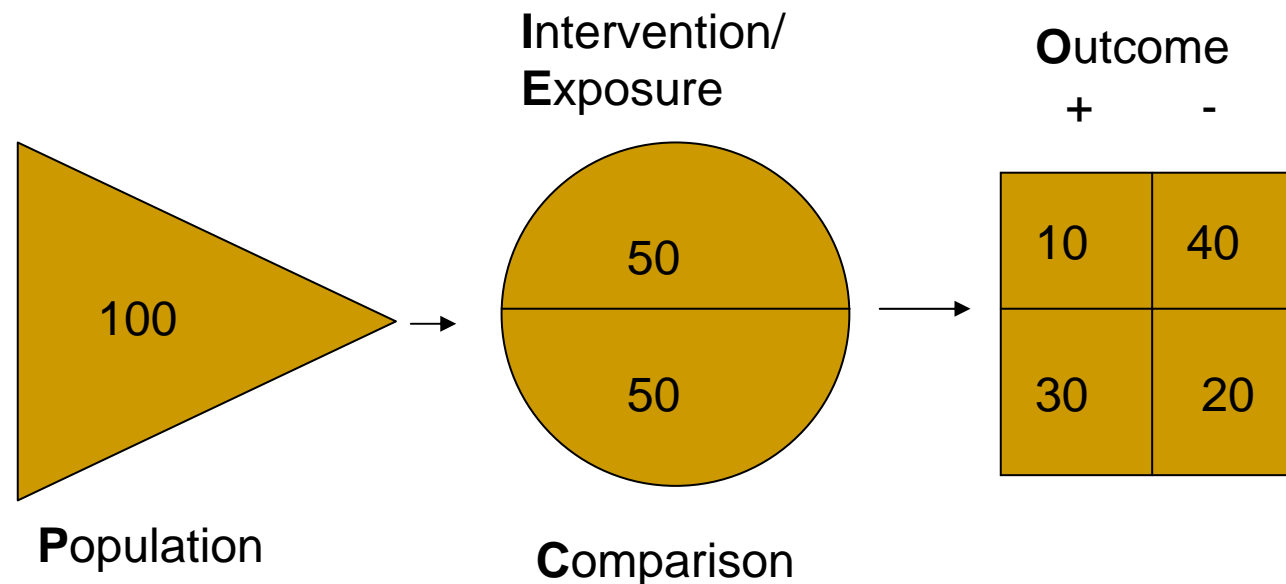


Framing validity questions with GATE



Calculating occurrence and effect estimates in GATE framework

Study: Use of elastic stockings to prevent DVT on long haul flights



Occurrence:

EGO=10/50

CGO=30/50

Relative risk:

EGO/CGO=

$10/50 \div 30/50 = 0.3$

Risk Difference:

CGO-EGO=

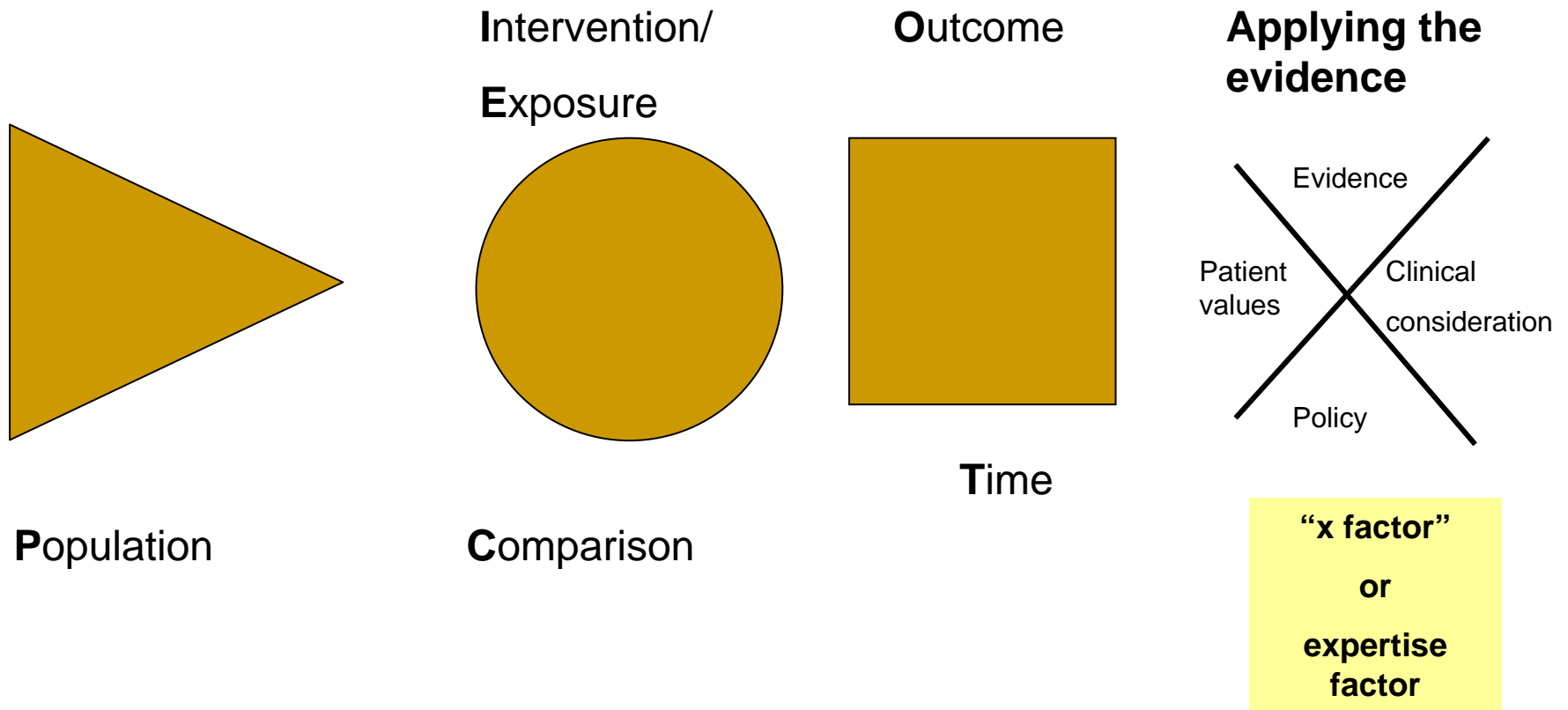
$30/50 - 10/50 = 0.4$

NNT:

$1/RD =$

$1/0.4 = 2.5$

The GATE frame-critical appraisal with pictures PICOT (PECOT)



Use GATE frame to critically appraise an RCT relating to our clinical scenario

- “Oral Ondansetron for Gastroenteritis in a Pediatric Emergency Department”

