Kirby Institute

PRESUMPTIVE TREATMENT FOR CHLAMYDIA AND GONORRHOEA IN REMOTE ABORIGINAL HEALTH SERVICES

Smith KS, Causer LM, Watchirs Smith L, Saha A, Andrewartha K, Walley B, Shephard M, Wand H, Richards JN, Badman SG, Tangey A, Marshall-Lang R, and Guy R, on behalf of the TTANGO2 collaboration

Australasian Sexual Health Conference 16-18 September 2019

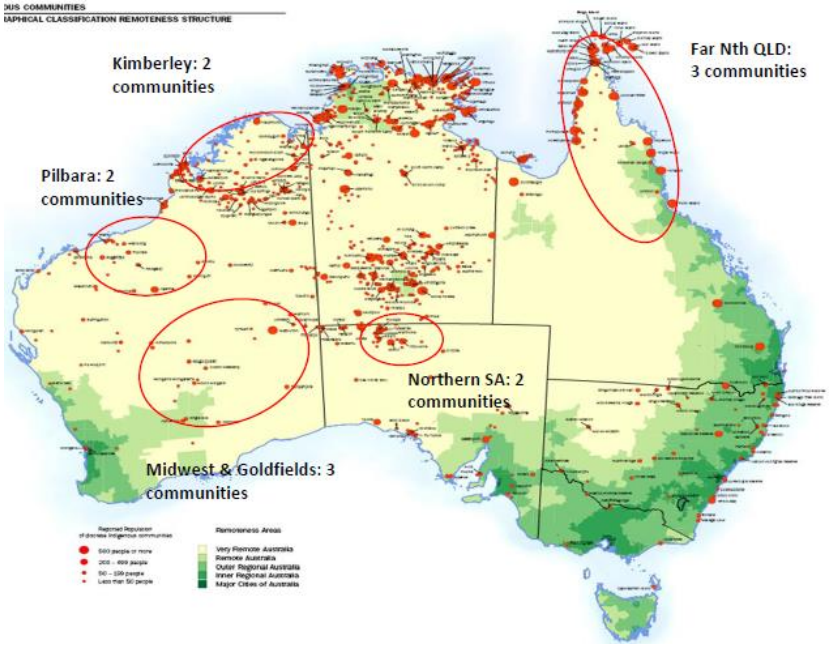
Background

- STI notification rates are highest among Indigenous people living in remote communities in Australia[1]
- 1 in 2 adolescents diagnosed with CT, NG or TV[2]
- 1 in 5 people diagnosed with an STI remain untreated[3]
- Treatment can be delayed by weeks[2]
- PID hospitalisations among Indigenous women are twice that of non-Indigenous women[4]
- Majority of cases asymptomatic

1. HIV, STI and BBV Annual surveillance report. 2017 Kirby Institute; 2. Guy R et al. *Sex Transm Infect* 2015
3. Guy et al. *Sexual Health* 2012; 4. Reekie et al. *Clin Infect Dis 2018*

TTANGO (Test, Treat and Go) 2013-2015

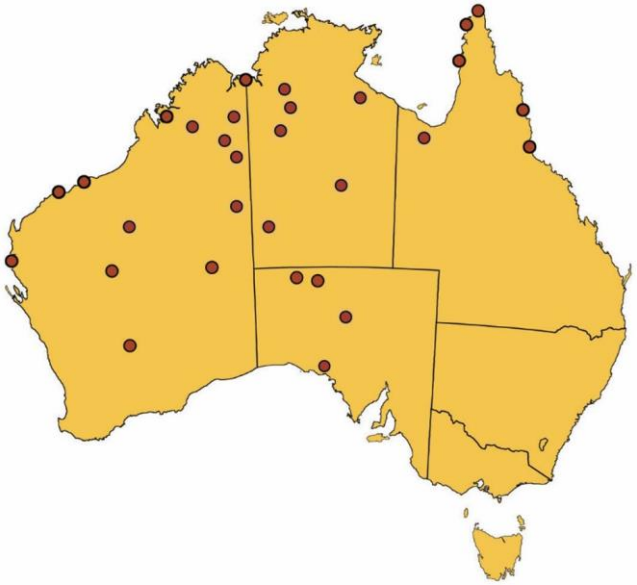
- Cross-over, cluster-randomised controlled trial[5]
- POC testing (GeneXpert) for CT/NG **versus** lab testing
- 12 remote primary health services across 3 Australian states
- Funded by NHMRC



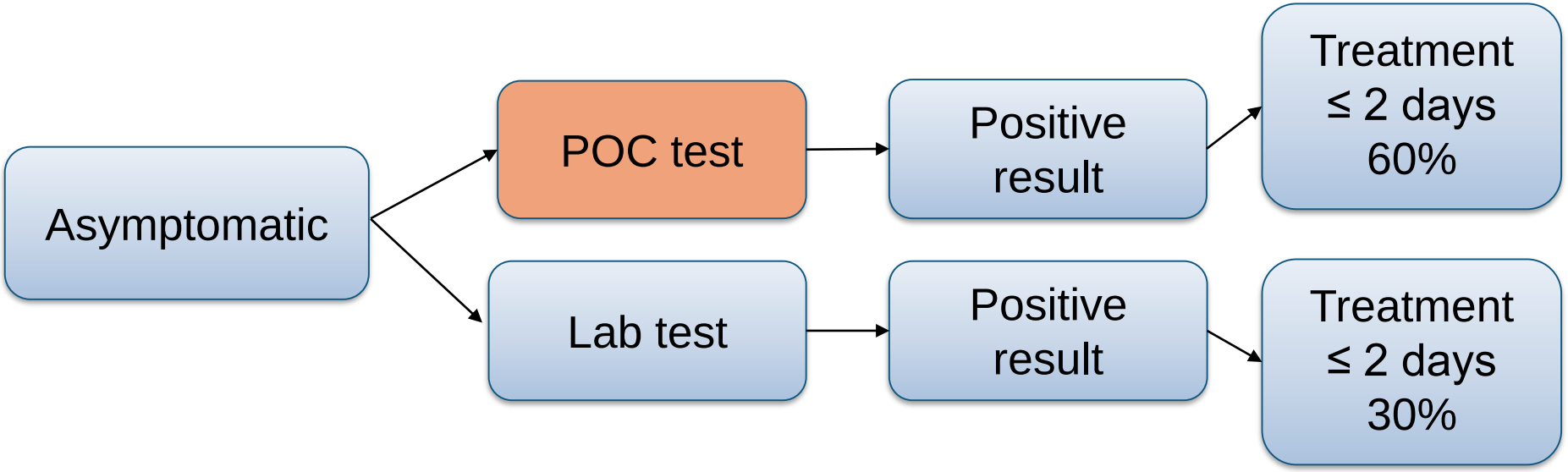
5. Guy et al. BMC ID 2014

TTANGO2 2016-2020

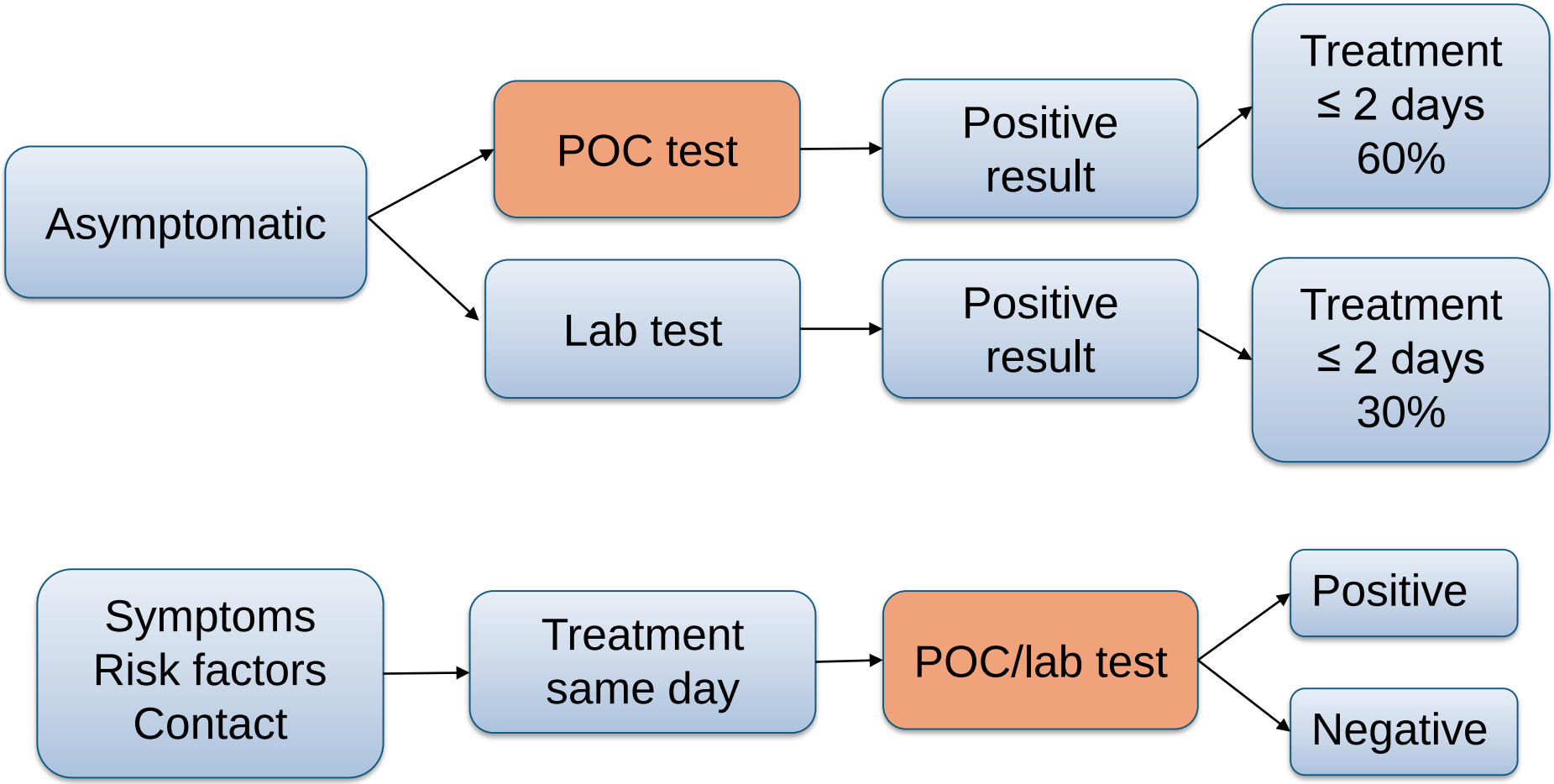
- Programmatic expansion
- POC testing for CT/NG +TV **or** lab testing
- >30 remote primary health services across 4 states/ territories
- Funded by NHMRC, Australian Government, WA and QLD Health



How POC integrated into the clinical pathway



How POC integrated into the clinical pathway



Rationale/ aims

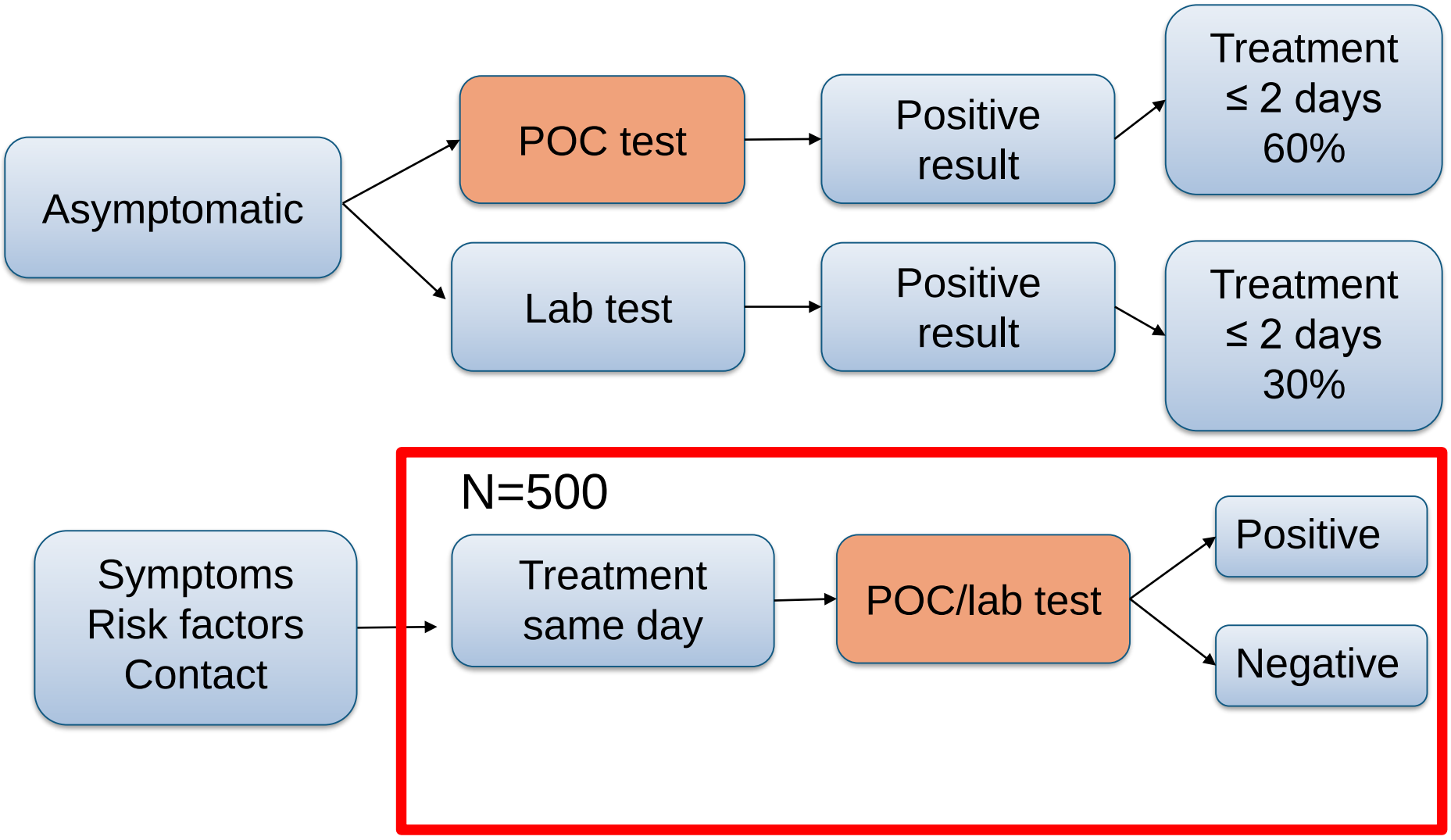
- Presumptive treatment results in unnecessary antibiotic use
- azithromycin, amoxicillin and probenecid (ZAP pack) or ceftriaxone and azithromycin
- Concerns about antimicrobial resistance
  - Mycoplasma genitalium
  - 60-80% azithromycin resistance in urban areas[6,7]
- Could POC be used instead of presumptive treatment?
- What is the STI positivity in those presumptively treated?

; 6. Read et al. Clin Infect Dis, 2019; 7. Couldwell et al, Sex Trans Inf, 2018

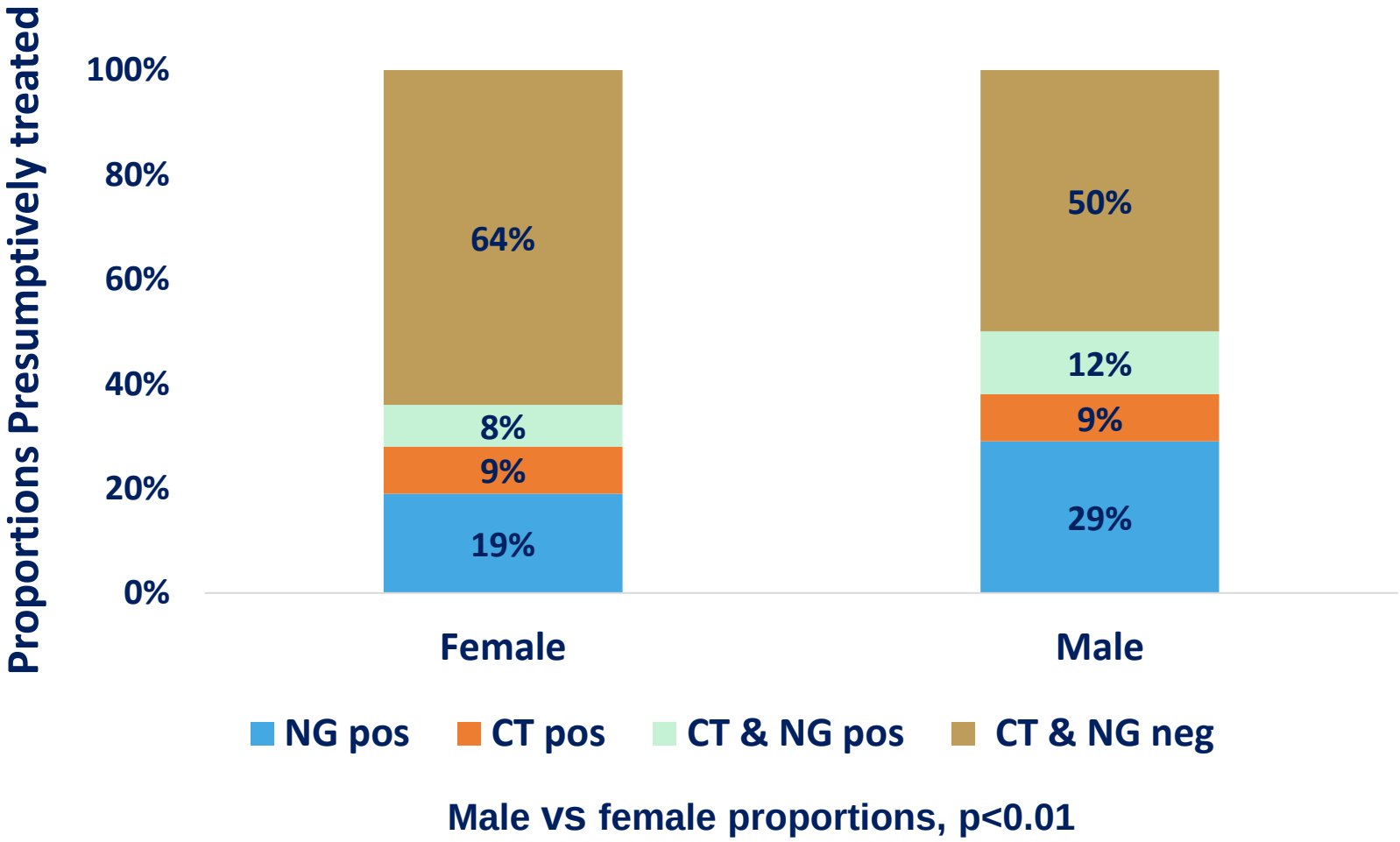
Methods

- TTANGO2 study
- 2016 – 2018
- Pre and post POC data
- 11 sites (WA, SA, NT)
- Aged ≥16 years
- Presumptive treatment = treatment same day as CT/NG specimen collection
- CT/NG positivity in those treated presumptively
- Stratified by age, sex, pre-post TTANGO2

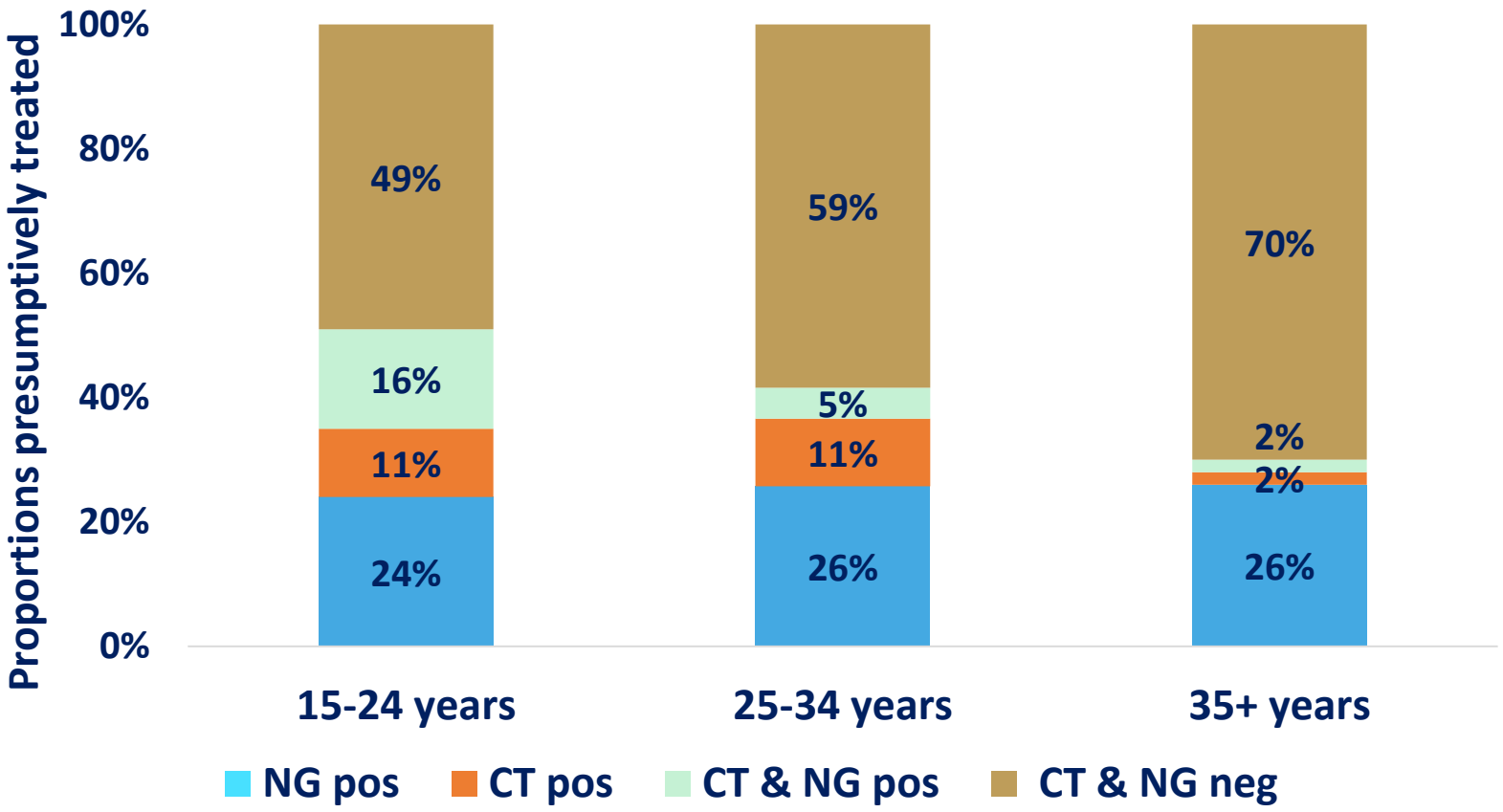
Study population



CT/NG positivity among those presumptively treated, by gender

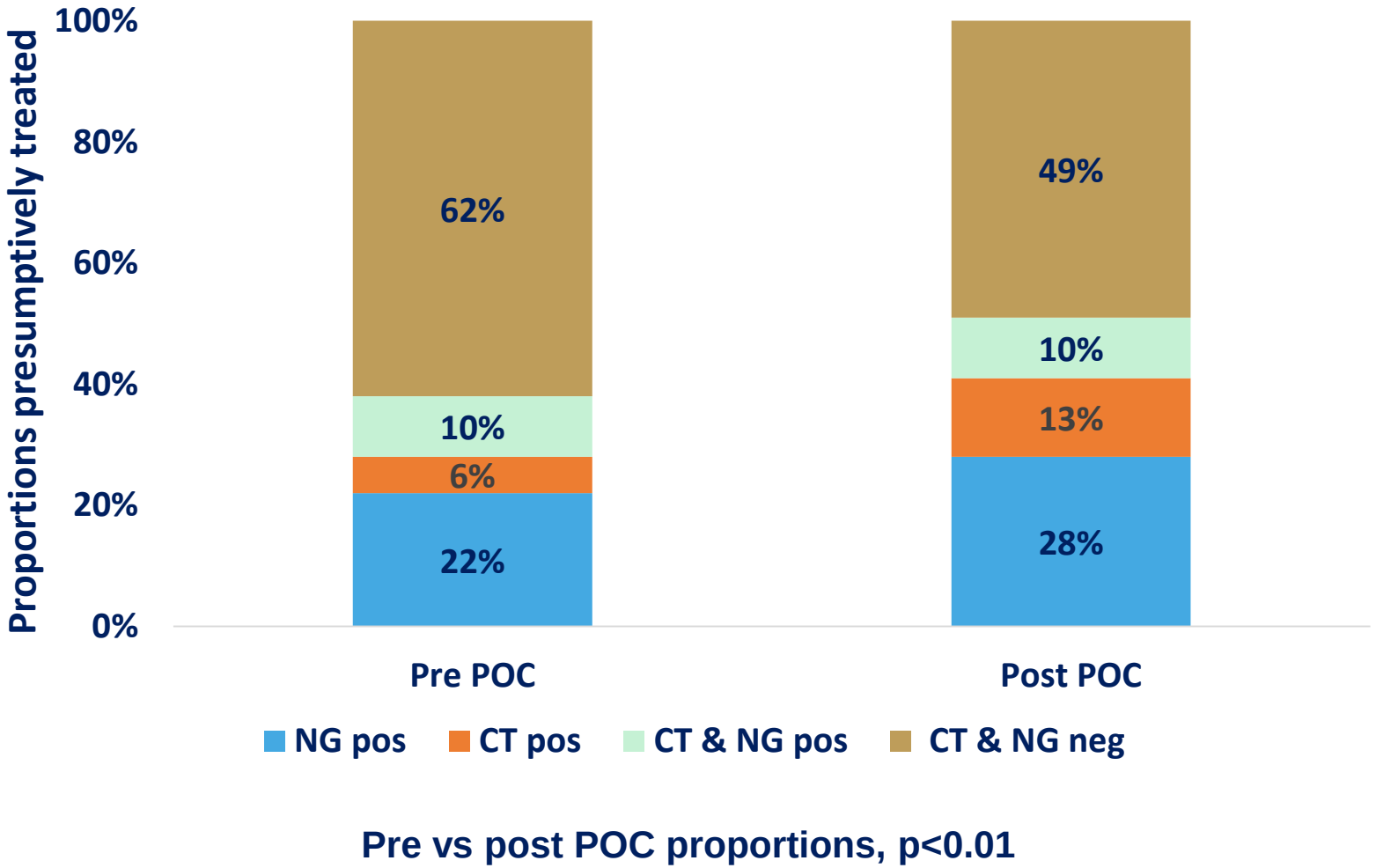


CT/NG positivity among those presumptively treated, by age group



Age group proportions, p<0.01

CT/NG positivity among those presumptively treated, pre and post POC



Pre vs post POC proportions, p<0.01

Summary

- In those treated presumptively, about half CT/NG negative

- Greater proportion negative:
  - Women
  - Aged ≥35 years
  - Before POC available

Limitations

- Captured treatments recorded in the prescription field only
- Reason for presumptive treatment was not available
- Not generalisable to all remote communities

Conclusions

- Presumptive treatment remains appropriate, except ≥35 yr olds?

- Presumptive treatment more selective when POC available as CT/NG positivity higher in those presumptively treated?

- To replace presumptive treatment with POC would require careful assessment of benefits vs risks
  - Prevalence of MG and AMR
  - Loss to follow up

Acknowledgements

- Participating health services & staff
- Departments of Health WA, QLD, SA, NT
- West Australian Country Health Service
- Aboriginal Health Council of Western Australia
- Queensland Aboriginal and Islander Health Council
- Aboriginal Health Council of South Australia
- Aboriginal Medical Services Alliance of Northern Territory
- Kimberley Aboriginal Medical Services Council
- Kirby Institute, University of NSW
- Flinders University
- South Australian Health and Medical Research Institute
- TTANGO2 Executive and Leaders' Groups
- PathWest
- Western Diagnostics Pathology
- Clinipath Pathology
- Pathology Queensland
- Apunipima Cape York Health Council
- Kimberley Aboriginal Medical Services
- Ngaanyatjarra Health Service
- Burnet Institute
- Royal Women's Hospital, Melbourne
- University of Queensland
- Monash University
- National Serology Reference Laboratory
- Medical Communication Associates
- Cepheid

TTANGO2 is funded through a National Health and Medical Research Council Partnership Grant, the Australian Government Department of Health, WA Health and QLD Health