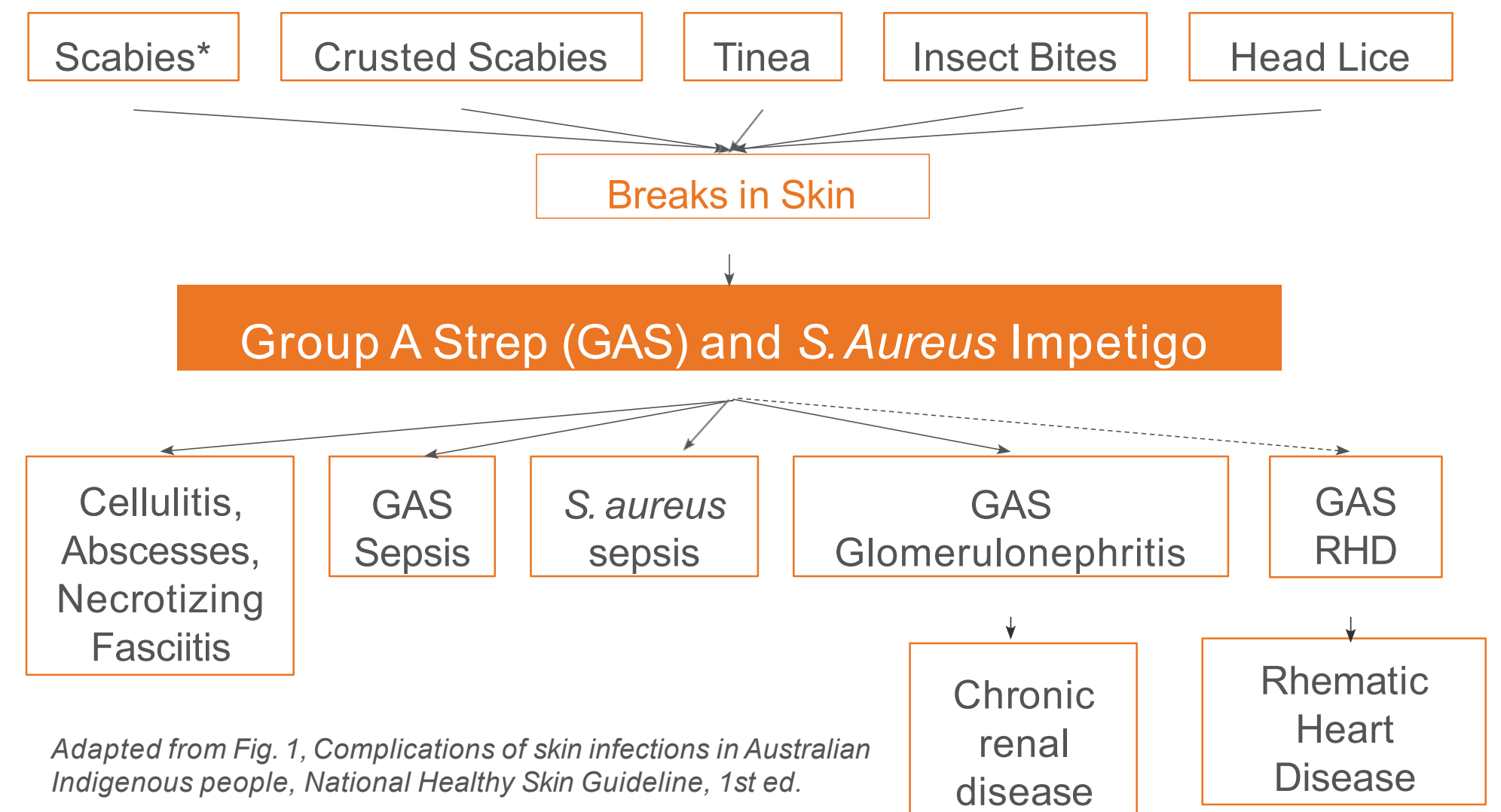


# SToP Trial: Assessing Impetigo and Scabies in Remote Aboriginal Communities

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## Motivation



Adapted from Fig. 1, Complications of skin infections in Australian Indigenous people, National Healthy Skin Guideline, 1st ed.

- Estimated 47% of Aboriginal children suffer from impetigo (skin sores) at any one time<sup>2</sup>
- Inequitable burden of impetigo and Strep A diseases on Aboriginal children is attributed to poor environmental conditions, lack of access to health care services, and cultural normalization.

## Background



(See, Treat, Prevent) Skin Sores and Scabies

	Baseline Surveillance (Visits 1-2)	Step 1 (Visits 3-5)	Step 2 (Visits 6-8)	Follow-up Maintenance (Visit 9)
Cluster 1				
Cluster 2				
Cluster 3				
Cluster 4				

- Aims to reduce prevalence of impetigo in school aged children 5-9 years old by 50%
  - Secondary objective: to document impact of reduced skin infection burden on other health indicators, as measured by reduction in prevalence of scabies
- Nine remote Aboriginal communities in the Kimberley region arranged into four clusters each with 84 expected participants (n=336) in a cluster-randomized, step-wedge design

### SEE

- Development of training resources/packages within a community model through school-based surveillance

### TREAT

- Replace intramuscular BPG injections with oral co-trimoxazole for impetigo
- Prescribe oral ivermectin (200 mcg/kg) as first-line treatment for scabies

### PREVENT

- Introduce culturally-informed health promotion and environmental health activities

## Ivermectin and Head Lice

The NEW ENGLAND JOURNAL of MEDICINE

ORIGINAL ARTICLE

### Oral Ivermectin versus Malathion Lotion for Difficult-to-Treat Head Lice

Olivier Chosidow, M.D., Ph.D., Bruno Giraudeau, Ph.D., Jeremy Cottrell, M.S., Arezki Izri, M.D., Robert Hofmann, M.D., Ph.D., Stephen G. Mann, M.D., and Ian Burgess, Ph.D.

- First baseline visit in May 2019 revealed high prevalence of head lice in majority of communities
- Possible additional treatment arm of ivermectin for head lice
- Developing resistance to current, licensed treatments
- All previously conducted clinical trials indicate non-inferiority if not superiority of oral ivermectin to current treatments
- Considered adding treatment arm to current trial
- Head lice listed under ectoparasites in WHO 's list of Neglected Tropical diseases and may be subject of future study

## Surveillance Visits



- Conducted surveillance activities and skin screenings at a remote community 750 miles from Perth
- Assessed skin for purulent, crusted, flat/dry sores; classical/crusted scabies; tinea; head lice; boils/abscesses; and other abrasions
- Collected skin swabs of purulent sores to be analyzed for presence of Strep A

## Future Work

- Publication of baseline results
- Begin Step 1 in October 2019 for two of the four clusters

## Acknowledgements

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## POOR Surveys

- Project Officer Observational Reports (POOR) contribute to comprehensive evaluation of trial implementation
- Contextual information of POOR reports are evaluated as possible factors influencing trial success
- Need to translate qualitative observations into statistically robust formats for downstream analysis
- Tested and modified current survey structure with sample set of POOR reports
- Implemented branching logic supported by binary scaffolding
- Streamlined survey structure to reduce ambiguity and user confusion

## Protocol Development

- Analyzed sample clinic extracts to develop protocol for identifying adverse events, i.e. clinical presentations within 7 days following administration of user confusion
- Codified into Standard Operating Procedures

## References

1. National Healthy Skin Guideline. <https://infectiousdiseases.telethonkids.org.au/resources/skin-guidelines/>. Accessed August 20, 2019.
2. Bowen AC, Mahé A, Hay RJ, et al. The Global Epidemiology of Impetigo: A Systematic Review of the Population Prevalence of Impetigo and Pyoderma. Reid SD, ed. *PLOS ONE*. 2015;10(8):e0136789. doi:10.1371/journal.pone.0136789