



South Australian Expert Advisory Committee on Antimicrobial Resistance (SAAGAR)

Annual Report 2019 - 2020

Foreword

The South Australian expert Advisory Group on Antimicrobial Resistance (SAAGAR) was established in 2008 to provide strategic direction for antimicrobial stewardship in South Australia. For more than a decade SAAGAR has led antimicrobial stewardship (AMS) initiatives in SA hospitals and healthcare organisations, providing advice and promoting the safe and appropriate use of antimicrobials.

Representation on SAAGAR is multi-sector, with committee members from both the public and private health sectors. A key function of SAAGAR is the development and review of AMS resources, including antimicrobial guidelines for state wide use. The committee reviews antimicrobial use in SA healthcare facilities and responds to consultation regarding antimicrobial use from all sectors within SA. Executive support for SAAGAR is provided by the Antimicrobial Programs division of the Communicable Disease Control Branch (CDCB), Department for Health and Wellbeing (DHW) and is accountable to the Minister via the South Australian Medicines Advisory Committee (SAMAC).

This annual report of SAAGAR is intended to provide an overview of the activities and achievements of the committee over the 2019-2020 financial year.

Disclaimer: While the Department uses its best endeavours to ensure the quality of the information available in this report, it cannot guarantee and assumes no legal liability or responsibility for the accuracy, currency or completeness of the information.

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Executive summary

The 2019-2020 financial year is the twelfth year of operation for SAAGAR and membership continues to be strong as the risks of antimicrobial resistance (AMR) increase. The increasing focus on AMR as a public health problem nationally and internationally has highlighted the importance of engagement of all levels of government in the approach to managing AMR. SAAGAR is a working committee, with members from different sites and sectors contributing to the development of resources for use within SA. SAAGAR plays an important consultative role for other SA committees including the SA Formulary Committee (SAFC) and is increasingly collaborating with the Sunrise® team to utilise electronic medical record systems to support AMS. The scope of the committee continues to expand and now includes out-of-hospital areas of clinical practice, including SA ambulance and a representative from the Drug and Therapeutics Information Service (DATIS) who provide educational resources to General Practitioners in primary care. Ensuring that antimicrobial resistance is considered in future planning at a state level and advocating for resources to manage antimicrobial resistance across South Australia continues to be the ongoing focus of SAAGAR.



Dr Morgyn Warner

Chair, SAAGAR

Abbreviations / acronyms

AAW	Antibiotic Awareness Week
ACHS	Australian Council on Healthcare Standards
ADC	Automated dispensing cabinet
AMS	Antimicrobial stewardship
AMU	Acute Medical Unit
ASA	Australian Society for Antimicrobials
BHFLHN	Barossa Hills Fleurieu Local Health Network
BSAC	British Society for Antimicrobial Chemotherapy
CALHN	Central Adelaide Local Health Network
CAP	Community acquired pneumonia
CAR	Critical antimicrobial resistance
DHW	Department for Health and Wellbeing
DTC	Drug and Therapeutics Committee
ECCMID	European Congress of Clinical Microbiology and Infectious Diseases
EFNLHN	Eyre and Far North Local Health Network
EPAS	SA Health Electronic Prescribing
FAST	Flinders Antimicrobial Stewardship Training
FUNLHN	Flinders and Upper North Local Health Network
GPs	General Practitioners
HAP	Hospital acquired pneumonia
ICCU	Intensive and Critical Care Unit
ICU	Intensive Care Unit
ID	Infectious Diseases
LCLHN	Limestone Coast Local Health Network
LMH	Lyell McEwin Hospital
MIC	Minimum Inhibitory Concentration
MPH	Modbury Hospital
NAPS	National Antimicrobial Prescribing Survey
NSQHS	National Safety and Quality Health Service
QID	Four times daily
RAH	Royal Adelaide Hospital

RMCLHN	Riverland Mallee Coorong Local Health Network
SAAGAR	South Australian Expert Advisory Group on Antimicrobial Resistance
SAAS	South Australian Ambulance Service
SAB	<i>Staphylococcus aureus</i> bacteraemia
SALHN	Southern Adelaide Local Health Network
SAMEP	South Australian Medicines Evaluation Panel
SAS	Special Access Scheme
SNAPS	Surgical National Antimicrobial Prescribing Survey
TQEH	The Queen Elizabeth Hospital
UTI	Urinary Tract Infection
WCH	Women's and Children's Hospital
WCHN	Women's and Children's Local Health Network
YNLHN	Yorke and Northern Local Health Network

SAAGAR membership

SAAGAR is comprised of members with infectious diseases, pharmacy and clinical microbiology expertise, and includes representation from each of SA Health's Local Health Networks (LHN) Antimicrobial Stewardship (AMS) committees and private hospital organisations. Other members include representatives from SA Ambulance Service (SAAS), the National Antimicrobial Utilisation Surveillance Program (NAUSP), SA Formulary Committee (SAFC), the Drug and Therapeutics Information Service (DATIS) and members with public health policy expertise.

SAAGAR welcomed the following new members over the 2019-2020 financial year:

- > Corinne Pensa (Project Support Officer, DHW)
- > Rachael Cheh (SA Formulary Committee)
- > Karen Rowland (Adelaide Community Healthcare Alliance (ACHA))

Dr Morgyn Warner continued as Chairperson. Dr Emily Rowe continued as Deputy Chair of SAAGAR until January 2020 after which Dr Rory Hannah was elected into this role.

After overseeing the activities of SAAGAR since its inception in 2008, Vicki McNeil stepped down from the role of Executive Officer in November 2019. Vicki played an integral role in the success of SAAGAR over the last decade, providing a pivotal role in the development and maintenance of the stewardship resources available to South Australians and to health practitioners nationally.

SAAGAR met on three occasions between July 2019 and June 2020. The meeting scheduled for May 2020 was cancelled due to member involvement in the response to the COVID-19 pandemic. SAAGAR membership and attendances are provided in Appendix 1.

SAAGAR outcomes and projects

Antimicrobial Prescribing Guidelines

SAAGAR's aim is to ensure the widespread availability of tailored, evidence-based and user-friendly antimicrobial prescribing guidelines for all sectors in South Australia.

In general, SAAGAR guidelines are congruent with recommendations in the latest online version of *Therapeutic Guidelines: Antibiotic*[®] wherever possible, differing only where more specific statewide recommendations are preferable (rather than multiple options), or local epidemiology indicates different therapy.

New guidelines / position statements / factsheets

Newly developed guidelines and position statements, completed during 2019/2020 include:

- > Hydroxychloroquine and COVID-19
- > Appropriate use of fluoroquinolones
- > Inappropriate topical application of antimicrobials
- > Multi-drug resistant UTI

The following fact sheet, originally developed by the Central Adelaide Local Health Network (CALHN), was adapted for statewide applicability and made available on the SAAGAR website:

- > Dosing of antimicrobials for obese patients

All SAAGAR guidelines are available at: <https://www.sahealth.sa.gov.au/antimicrobials>

Revised guidelines / policies

Guidelines and policies that were reviewed and updated include:

- > *Staphylococcus aureus* bacteraemia (SAB) management in adults
- > Splenectomy vaccination and antimicrobial prophylaxis guideline
- > Vancomycin Dosing and Monitoring in Adults
- > Aminoglycoside Dosing and Monitoring
- > Gastrointestinal surgical prophylaxis guideline

Antibiotic allergies webpage

A webpage providing resources on the management of antibiotic allergies was produced in collaboration with the immunology department in CALHN. SAAGAR consulted with Dr William Smith, a consultant immunologist and the current chair of the Australasian Society of Clinical Immunology and Allergy (ASCIA), to develop the webpage content, and a form to assist the documentation of antibiotic allergies in patient notes.

The Antibiotic Allergies webpage includes information for:

- > The extent of inaccurate labels
- > The consequences of inaccurate allergy labels
- > Recording of antibiotic allergies in patient notes
- > Choosing an antibiotic in a patient with a history of allergy
- > Penicillin and cephalosporin allergies
- > Other antimicrobial allergies

An Adverse Drug Reaction reporting form is also available from the webpage.

Consumer Information leaflets

No new consumer information leaflets were developed in the 2019-2020 financial year

Responses to consultation / Provision of expert advice

As SAAGAR is the peak advisory committee on antimicrobial prescribing and use in South Australia, the group provides ongoing expert advice in response to consultations.

Draft State Public Health Plan 2019 – 2024

In the previous financial year SAAGAR responded to the initial consultation on the draft State Public Health Plan 2019-2024, advocating for the inclusion of antimicrobial resistance in the document. As a result “Strategies to increase awareness and public understanding of antimicrobial resistance and implications for the community and the environment” was included as one of SA Health’s key commitments for 2019-2024 when the plan was published during this financial year. In addition, the development of a Statewide AMR Action Plan has been included as an objective in the Public Health Plan.

Antimicrobial shortages

Shortages of antimicrobial drugs continue to be an ongoing challenge for prescribers. SAAGAR disseminated information on and provided expert advice to prescribers regarding suitable alternatives when antimicrobial shortages or recalls occurred for the following antimicrobials:

- > Benzylpenicillin
- > Gentamicin
- > Tinidazole

SA Formulary applications or amendments

SAAGAR was consulted for advice on formulary applications or amendments (including suggested restrictions) to the statewide formulary, for the following medicines:

- > Dolutegravir 50mg + Rilpivirine 25mg tablets
- > Dolutegravir 50mg + Lamivudine 100mg tablets
- > Raltegravir 25mg and 100mg chewable tablets
- > Amoxicillin + clavulanic acid 2000mg + 200mg injection
- > Flucytosine 500 mg Tablets (SAS)
- > Topical chloramphenicol products
- > Kenacomb ointment
- > TB meds
- > Chlorhexidine ethanol solutions
- > Tinidazole
- > Oseltamivir oral liquid

Other advice

Other expert advice or feedback provided by SAAGAR in response to consultation included:

- > FUNLHN-developed lanyard
- > HealthPathways SA re Influenza pathways
- > Sunrise EMR
- > *Therapeutic Guidelines*[®] regarding search functionality for clinical guidelines

Antibiotic Awareness Week (AAW) 2019

Antibiotic Awareness Week is an initiative led by the World Health Organization in November each year to highlight the global problem of antimicrobial resistance. In 2019 the theme of Antibiotic Awareness Week was “The future of antibiotics depends on us all”. The SAAGAR executive worked in collaboration with the SA Health media and communications team to promote the week on social media. Local resources and links to national resources were made available on the SA Health [website](#). Antimicrobial Stewardship committees in the Local Health Networks, coordinated activities across SA Health to promote the safe and judicious use of antibiotics in hospitals and in the community. Posters, PowerPoint presentations, pocket cards, and screensavers were some of the resources disseminated.

Activities of LHN Antimicrobial Stewardship Committees

The following summaries highlight the of activities of the AMS committees within the Local Health Networks during the 2019-2020 financial year:

Central Adelaide Local Health Network (CALHN)

- > Audits were completed for surgical antibiotic prophylaxis in cardiac and gastrointestinal procedures
- > A Sepsis pathway awareness survey was conducted during World Sepsis Day and found awareness has improved.
- > An audit of ward staff regarding their awareness of antibiotic guidelines showed poor results from nursing staff and an infographic was developed in response.
- > A revised vancomycin guideline was published at the start of January to coincide with the start of the new hospital interns. Lanyard cards for vancomycin/gentamicin dosing, community acquired pneumonia/HAP treatment guidelines were distributed at the same time
- > NAPs was completed in October and feedback reports were distributed to individual units with the unit's overall results, a few examples of inappropriate prescribing and ways to improve prescribing.
- > New senior pharmacist role for 6 months working with HITH and Infectious Diseases to identify barriers to discharge and implement strategies to reduce the length of stay patients residing in acute beds receiving IV antibiotics that are deemed clinically safe for discharge.

Southern Adelaide Local Health Network (SALHN)

- > A Surgical NAPS survey was completed for plastic surgery as a post-implementation audit of their local surgical prophylaxis guideline from last year. This showed poor compliance with guidelines. Issues identified included skin to knife time not documented, post-op prophylaxis duration too long and topical chloramphenicol use on wounds. Plastics were provided with an executive report including the SAAGAR position statement on topical antimicrobials.
- > AMS program within SALHN received positive feedback from the most recent hospital accreditation in November 2019.
- > NAPS Executive Reports for both FMC and NHS finalised with national benchmarking results included.
- > A Surgical NAPS survey was completed for Urological surgery.
- > NAUSP reports have shown improvement in Intensive Care settings, particularly for agents such as cefepime, meropenem and vancomycin
- > The SALHN AMS team commenced more intensive post-prescription AMS ward rounds in the general medicine units.
- > The SALHN AMS team commenced case note review of patients treated for CPE to retrospectively review the appropriateness of the antimicrobials used in their admissions prior to the CPE infection
- > A Consumer medicine information leaflet for general antibiotic use was developed and approved by Aboriginal and Torres Strait Islander consumers from the Aboriginal Liaison Unit.

Northern Adelaide Local Health Network (NALHN)

- > Local vancomycin and CAP guidelines were updated incorporating recent changes from the eTG.

- > A penicillin allergy flowchart (adapted from eTG penicillin hypersensitivity flowchart) was developed and incorporated into the CAP guideline update
- > NAPS was completed for both NALHN sites (LMH and Modbury) and results presented at Grand Round. Documentation of indications, ID approvals and stop dates were identified as areas for improvement.
- > An audit of treatment of CAP showed one third of antibiotics were inappropriately prescribed and de-escalation prescribing was not appropriate.

Women's and Children's Local Health Network (WCHN)

- > Audit was completed for surgical antibiotic prophylaxis in PICU/HDU. The percentage of appropriate procedural and Post-procedural antimicrobial prophylaxis were 81% and 72%
- > Audit was completed for surgical antibiotic prophylaxis for patients with uncomplicated appendicitis. The audit proved that the change made to the current protocol for the management of uncomplicated appendectomies did not cause an adverse effect on patient outcomes.
- > Audit was completed for antimicrobial prescribing after tonsillectomy +/- adenoidectomy for ENT patients. The antibiotic prescribing pattern for post tonsillectomy +/- adenoidectomy at the WCH reflects current practice guideline recommendations.
- > NAPs was completed in December and feedback reports was presented at WCHN AMSRG distributed to WCHN DTC, results similar to previous years.

Regional LHNs (BHFLHN, EFNLHN, FUNLHN, LCLHN, RMCLHN, YNLHN)

- > Country Health SA LHN transitioned to six regional LHNs from 01 July 2019:
 - Barossa Hills Fleurieu Local Health Network (BHFLHN)
 - Eyre and Far North Local Health Network (EFNLHN)
 - Flinders and Upper North Local Health Network (FUNLHN)
 - Limestone Coast Local Health Network (LCLHN)
 - Riverland Mallee Coorong Local Health Network (RMCLHN)
 - Yorke and Northern Local Health Network (YNLHN)
- > The networked AMS program in CHSA transitioned to six regional LHN based AMS programs.
- > A Regional LHN AMS Forum was established to support the AMS program functions.
- > There was a focus on AMS capacity building for each of the six regional LHNs: including exploring AMS opportunities in aged care settings, engaging clinicians, AMS audits, NAUSP and antibiograms.
- > Regional LHN AMS working groups considered the options to participate in the National Antimicrobial Prescribing Survey (NAPS).
- > Ongoing participation in the Antimicrobial Awareness Week activities.
- > AMS Action Plans were reviewed and updated.

Private hospitals

The Adelaide Community Healthcare Alliance (ACHA) group:

- > Audits of PPM / AICD insertion surgical prophylaxis were conducted at Ashford and Flinders private hospitals. Compliance to SAAGAR guideline with respect to drug and dose improved or was maintained from previous audits.
- > CAP management was identified as an area for improvement and a flowchart similar to NALHN was developed. Ceftriaxone was shown to be used routinely as the antibiotic of choice.

- > A/Prof Ross Philpot retired from private practice and Dr Karen Rowland commenced in representing private practice on SAAGAR.
- > Past surgical prophylaxis audits were reviewed and a one page fact sheet for surgeons and anaesthetists was produced

Community / primary care / SA ambulance

- > The Drug and Therapeutics Information Service (DATIS) has been commissioned by the Country Health Primary Health Network (PHN) to deliver the DATIS Medicines Optimisation Service (MOS). AMS continues to be a frequently requested topic, particularly from aged care providers.
- > The Marion Council contacted SAAGAR requesting community information sessions about antibiotic education. These were delivered by DATIS in February 2020.
- > Lauren Wierenga from DATIS presented at GP19 conference – Antibiotic allergy.
- > DATIS have delivered AMS education as part of Service Enhancement for Quality Use of Antibiotics in longer term care project (SEQUEL), a collaborative project partnering with Southern Cross Care.

Discussion

Future Direction

The activities of SAAGAR are in alignment with the national strategy to manage antimicrobial resistance. Strategies to increase awareness and public understanding of antimicrobial resistance and implications for the community and the environment is a documented objective in the State Public Health Plan. SAAGAR acknowledges that the education of the general public, patients and caregivers will be important in achieving this aim. Cross-sector educational strategies during Antimicrobial Awareness Week will be an important medium to spread this messaging.

SAAGAR continues to advocate for Decision Support Tools that can be interfaced with prescribing software. These IT tools have been shown to assist with stewardship in other Australian states, particularly in settings where there is limited access to Infectious Diseases expertise such as in more rural or remote areas.

Going forwards, SAAGAR will play a role in the development of the Statewide AMR Action Plan, particularly with regard to collaboration and communication among stakeholders.

Challenges

Managing the risks of antimicrobial resistance requires a cross-sector approach which provides strategic and resourcing challenges. Engagement will be required from the private and public sectors, and collaboration between the human, animal and environmental sectors. Ensuring all relevant stakeholders are included, and continue to engage in the development of a One Health action plan for South Australia will be important in its success.

Appendix 1: SAAGAR members and attendance 2019 – 2020

NAME	13/08/2019	12/09/2019	11/02/2020	12/05/2020
BUTENKO, Samantha <i>DHW - Infection Control Service</i>	✓	✓	A	Meeting cancelled
BUXTON, Michael <i>LCLHN – Mount Gambier & Districts Health Service</i>	A	✓	A	
CHEH, Rachael <i>SA Formulary Committee (SAFC)</i>	A	A	✓	
CONNOR, Erin <i>DHW - Infection Control Service</i>	✓	✓	✓	
CONOLAN, Sarah <i>SALHN - Flinders Medical Centre</i>	✓	✓	A	
COOPER, Dr Celia <i>WCHLN - Women's & Children's Hospital</i>	✓	✓	A	
COULSON, Leanne <i>SAAS - SA Ambulance Service</i>	A	✓	✓	
DANIEL, Dr Santhosh <i>SALHN - Flinders Medical Centre</i>	✓	✓	✓	
FLOOD, Louise <i>DHW – Communicable Disease Control Branch</i>	A	A	A	
GORDON, Prof David <i>SALHN - Flinders Medical Centre</i>	A	A	A	
HANNAH, Dr Rory <i>NALHN - Lyell McEwin Hospital</i>	✓	A	✓	
HILLOCK, Nadine <i>DHW - Infection Control Service</i>	✓	✓	✓	
KENNEDY, Dr Brendan <i>DHA - Communicable Disease Control Branch</i>	A	A	A	
KOEHLER, Dr Ann <i>DHA - Communicable Disease Control Branch</i>	A	✓	A	
LARCOMBE, Rebecca <i>SALHN - Flinders Medical Centre</i>	✓	✓	✓	
LEE, Dr PC <i>Private, Clinpath Laboratories</i>	A	✓	✓	
LORENZEN, Ulrik <i>WCHLN - Women's & Children's Hospital</i>	✓	✓	✓	
MCCONNELL, Dr Matthew <i>Rural Support Services, Regional LHNs</i>	A	✓	✓	
MCNEIL, Vicki <i>DHA - Infection Control Service</i>	✓	✓		
MONAGHAN, Thi <i>FUNLHN – Port Augusta Hospital</i>			✓	
PENSA, Corinne <i>DHW – Infection Control Service</i>			✓	
PARADISO, Lisa <i>CALHN – Royal Adelaide Hospital</i>	✓	✓	A	
PHILPOT, A/Prof Ross <i>CALHN – Queen Elizabeth Hospital</i>	✓	✓	A	
PINK, Jennifer <i>Country Pharmacy Services, SA Pharmacy</i>	A	A	A	
ROWE, Dr Emily <i>CALHN – Royal Adelaide Hospital</i>	✓	✓	✓	
ROWLAND, Dr Karen <i>ACHA</i>		A	✓	
SCANDRETT-SMITH, Daniel <i>ACHA – Ashford Hospital</i>	✓	A	✓	
TUCKER, Dr Emily <i>SALHN – Flinders Medical Centre</i>	✓	✓	A	
VONG, Ms Sal Ging <i>NALHN – Lyell McEwin Hospital</i>	✓	✓	✓	
WAGNER, Tasma <i>FUNLHN, Port Augusta Hospital</i>	-	✓	A	

WALLACE, Caitlin <i>CALHN – Royal Adelaide Hospital</i>			✓	
WARNER, Dr Morgyn (CHAIR) <i>CALHN - Queen Elizabeth Hospital</i>	✓	✓	✓	
WIERENGA, Ms Lauren <i>Drug and Therapeutic Information Service (DATIS)</i>	✓	✓	✓	
WILSON, Courtenay <i>DHW - Infection Control Service</i>	✓	✓	✓	
ADDITIONAL ATTENDANCE / GUESTS				
MURTON, Dr Kate <i>DHA - Communicable Disease Control Branch</i>			✓	Meeting cancelled
SMITH, Dr William <i>Consultant Physician, Clinical Immunology and Allergy</i>	✓			
VASILUS, Dr Nan <i>WCHLN - Women's & Children's Hospital</i>			✓	

For more information

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www.ausgoal.gov.au/creative-commons