



South Australian Expert Advisory Committee on Antimicrobial Resistance

Annual Report 2018 - 2019



Government
of South Australia

SA Health

Foreword

The South Australian expert Advisory Group on Antimicrobial Resistance (SAAGAR) was established in 2008 to champion the adoption of antimicrobial stewardship in South Australia, and advise on the types of programs and components that will be most useful for South Australian healthcare organisations.

A key function of SAAGAR is to review and promote the safe and appropriate use of antibiotics. This is achieved by fostering the development and review of antimicrobial guidelines for statewide use, as well as considering and responding to antimicrobial utilisation surveillance data provided by the SA Health Infection Control Service. SAAGAR is administered by the Infection Control Service, 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 2018-2019 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 2018-2019 financial year is the eleventh year of operation for SAAGAR and membership continues to be strong, as antimicrobial resistance gains increasing focus as a public health problem nationally. This is very much a working committee, with members from different sites and sectors contributing their local guidelines and collaborating on initiatives for statewide adoption. SAAGAR plays an important consultative role for other SA committees including the SA Formulary Committee (SAFC). The scope of the group 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 and advocating for resources to manage antimicrobial resistance across the state continues to be an ongoing focus of SAAGAR.

A handwritten signature in black ink, appearing to read 'Morgyn Warner', enclosed in a thin black rectangular border.

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
BSAC	British Society for Antimicrobial Chemotherapy
CALHN	Central Adelaide Local Health Network
CAP	Community acquired pneumonia
CAR	Critical antimicrobial resistance
CHSALHN	Country Health South Australia Local Health Network
DHW	Department for Health and Wellbeing
DTC	Drug and Therapeutics Committee
ECCMID	European Congress of Clinical Microbiology and Infectious Diseases
EPAS	SA Health Electronic Prescribing
FAST	Flinders Antimicrobial Stewardship Training
GPs	General Practitioners
HAP	Hospital acquired pneumonia
ICCU	Intensive and Critical Care Unit
ICU	Intensive Care Unit
ID	Infectious Diseases
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
RMOs	Resident Medical Officers
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
WCH	Women's and Children's Hospital
WCHN	Women's and Children's Local Health Network

SAAGAR membership

The South Australian expert Advisory Group consists of members with infectious diseases, pharmacy and microbiology expertise, and includes representation from each of SA Health's Local Health Networks (LHN) Antimicrobial Stewardship (AMS) committees and private organisations. Other members include representatives from public health, SA ambulance service (SAAS), SA formulary committee and from community and residential care.

SAAGAR welcomed two new members over the 2018-2019 financial year:

- > Lauren Wierenga (Drug and Therapeutics Information Service, representing primary care)
- > Ashley Downs (Project Support Officer, Infection Control Service, DHW)

Dr Morgyn Warner continued as Chairperson, and Dr Emily Rowe continued as Deputy Chair of SAAGAR.

SAAGAR met on four occasions between July 2018 and June 2019. SAAGAR membership and attendances are provided in Appendix 1.

SAAGAR Outcomes and Projects

Prescribing Guidelines

SAAGAR's key focus for the 12 month period was the development of several new statewide antimicrobial guidelines and factsheets, and the update of existing guidelines due for review. SAAGAR's aim is to ensure the widespread availability of tailored, evidence-based antibiotic prescribing guidelines for all sectors in South Australia. In general, SAAGAR guidelines are congruent with the latest version of *Therapeutic Guidelines: Antibiotic*[®] wherever possible, differing only where recommendations are not available for specific indications or local epidemiology indicates different therapy. For example, the number of reported Critical Antimicrobial Resistance (CAR) isolates is currently lower in South Australia than in the eastern states of Australia [1].

New guidelines / position statements / factsheets

Newly developed guidelines and position statements, completed during 2017/2018 include:

- > Diabetic Foot Infection Clinical Guideline
- > SAAGAR position statement: Inappropriate topical application of antimicrobials
- > Appropriate use of fluoroquinolones

The following fact sheets developed by Central Adelaide Local Health Network (CALHN) were adapted for statewide applicability and uploaded onto the SAAGAR website:

- > Understanding Minimum Inhibitory Concentration (MICs) and break points
- > Pharmacodynamics and pharmacokinetics

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:

- > AMS policy directive
- > *Staphylococcus aureus* bacteraemia (SAB) management in adults

- > Splenectomy vaccination and antimicrobial prophylaxis guideline

Antibiotic allergies webpage

The development of a webpage providing resources on the management of antibiotic allergies was commenced in collaboration with the immunology department in CALHN. The webpage aims to provide resources for prescribers and patients, with links to immunology services and resources. SAAGAR consulted with Dr William Smith, a consultant immunologist and the current chair of the Australasian Society of Clinical Immunology and Allergy (ASCI), to develop the webpage content, and a form to assist the documentation of antibiotic allergies in patient notes.

Revision of SA Health AMS self-evaluation tool kit

The SAAGAR-developed AMS self-evaluation tool kit was updated in 2018 to incorporate evaluation criteria from sources other than the Manchester University tool kit and to encompass actions within version 2 of the National Safety and Quality in Health Service Standards.

Consumer Information leaflets

Updated consumer information leaflets include:

- > Consumer information: Post-splenectomy treatment
- > Important information for patients diagnosed with *Staphylococcus aureus* bacteraemia

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

SAAGAR responded to the initial consultation on the draft plan, advocating for the inclusion of antimicrobial resistance in the document.

Draft South Australian Health and Wellbeing Strategy 2019 – 2024

SAAGAR responded to the initial consultation on the draft plan, advocating for the inclusion of antimicrobial resistance in the document. In response to the draft, SAAGAR noted that the strategy was proposed with consideration for the changing age structure of the population up until 2031, with an increasing proportion of the population being over the age of 65 years old. SAAGAR emphasised that there is a significant burden of infection and colonisation with drug-resistant organisms among people living in residential aged care in Australia, and high levels of unnecessary and inappropriate antimicrobial prescribing. SAAGAR noted that the potential impact of AMR in an increasingly elderly population has not been considered in the draft strategy. In particular, the draft strategy did not propose deliverable action areas to minimise the development and spread of AMR due to the high patient transfer rates between aged care homes and hospitals.

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:

- > Flucloxacillin (oral)

- > Dicloxacillin (oral)
- > IV Azithromycin
- > Moxifloxacin (oral)
- > Benzylpenicillin

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:

- > Amphotericin 0.15% eye drops
- > Moxifloxacin 0.5% eye drops
- > Multiple vaccine brand changes in accordance with the current National Immunisation Program (NIP) South Australian Schedule.
- > Metronidazole 0.75% gel
- > Bictegravir / emtricitabine / tenofovir alafenamide (Biktarvy)
- > Abacavir / lamivudine / zidovudine (deletion from formulary)
- > Dolutegravir / rilpivirine tablets
- > Raltegravir 25mg and 100mg chewable tablets
- > Clindamycin 1% lotion
- > Flucytosine 500mg tablets (Special Access Scheme (SAS))
- > Oseltamivir 6mg/mL oral suspension

Other advice

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

- > SA Medicines Evaluation Panel (SAMEP) consultation regarding a formulary application for the high cost medicine, IV posaconazole. SAMEP sought SAAGAR's input on the proposal to list IV posaconazole on the High Cost Medicines Formulary for the same indications as posaconazole tablets are listed on the Pharmaceutical Benefits Schedule (PBS). SAAGAR's consensus recommendation was that IV posaconazole should be on the formulary for treatment only (not prophylaxis as per the PBS) as voriconazole or Ambisome (liposomal amphotericin) are more cost-effective for prophylaxis. In all situations, IV posaconazole must have Infectious Diseases / Clinical Microbiology Specialist (ID / Clin Micro) approval, usually third line or for salvage therapy in infections such as mucormycosis. The duration of treatment with IV posaconazole is to be guided by an ID / Clin Micro consultant.
- > The electronic Medication Management Working Group, who provide the governance for medicines included in electronic prescribing software within SA Health (Sunrise[®], previously known as EPAS[®]), sought SAAGAR advice regarding High Dose Alerts for parenteral aminoglycosides. The Working Group sought advice regarding a recommended dose cap for amikacin injection and endorsement of a proposed maximum of 640mg for gentamicin and tobramycin, which was supported by SAAGAR. SAAGAR provided a written response regarding amikacin, explaining the complexity of setting a cap for amikacin due to higher doses being required for complex cases under specialist care.
- > National Antimicrobial Utilisation Program (NAUSP) SA Annual report – SAAGAR members were asked to provide input into the NAUSP report of *Antimicrobial use in South Australian Hospitals (2017)*.

- > SAAGAR was consulted to provide expert advice for the content of lanyards to be used by prescribers in Port Augusta hospital. The purpose of the lanyards is to provide easily accessible and succinct guidance for prescribing of antimicrobials for common indications. Following a trial in Port Augusta, the lanyards may be adopted by other country sites.
- > In response to consultation sought from the Therapeutic Goods Administration (TGA) on the down-scheduling of trimethoprim, SAAGAR wrote to the Prescription Medicines Authorisation Branch of the TGA opposing the rescheduling.
- > SAAGAR provided feedback to the South Australian Formulary Committee (SAFC) regarding the readability of antimicrobial restrictions on the SA formulary website. In response, the online formulary was amended with restrictions for each antimicrobial provided in list format for improved readability and interpretation.

Antibiotic Awareness Week (AAW) 2018

Antibiotic Awareness Week is an initiative led by the World Health Organization in November each year to highlight the global problem of antimicrobial resistance. SAAGAR, in collaboration with 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, in addition to other activities such as sharing of results from the annual National Antimicrobial Prescribing Survey (NAPS) and Aged Care NAPS surveys. Links to stewardship resources were disseminated via social media during the week.

Activities of LHN Antimicrobial Stewardship Committees

Central Adelaide Local Health Network (CALHN)

- > Following the move to the new Royal Adelaide Hospital (nRAH) and the installation of Automated Dispensing Cabinets (ADCs) for medicines access on the ward, the AMS team identified ongoing issues with inappropriate and overuse of antimicrobials. This was partly attributed to the lack of interface between the ADCs and electronic medicine management software (eMM). Reported piperacillin/tazobactam (pip/taz) usage was the highest it has ever been at the RAH, despite the introduction of IV amoxicillin/clavulanic acid in July 2017. During the thrice weekly vancomycin AMS round, attempts were made to review a small number of patients on long courses of pip/taz who had not received previous ID review. This was challenging due to the reviews being resource intensive without Sunrise[®] and without dedicated staff resources. A hospital audit of pip/taz aimed to identify high utilisation units and/or prescribers, and subsequently deliver education and implement strategies in these areas. Management of meropenem use by the AMS team is robust, with the aim for pip/taz to be managed similarly in future.
- > Antibiotic lanyard cards were provided to pharmacists, interns and Resident Medical Officers (RMOs) across CALHN. The cards summarise treatments for community acquired pneumonia and hospital acquired pneumonia (CAP and HAP), aspiration pneumonia, vancomycin loading doses and gentamicin dosing.
- > The Influenza vaccine was administered to 172 inpatients across CALHN. This was a new initiative for this year and was largely driven by pharmacists taking medication histories and flagging patients who are eligible for the flu vaccine to the treating team. Next year CALHN hopes to expand on this and offer the flu vaccine in discharge lounges.

- > The AMS team now have access to the anaesthetic database at the RAH and have completed an audit of surgical prophylaxis for the Cardiovascular Investigation Unit (CVIU) / Interventional Cardiology Procedures. The AMS team have engaged surgeons and have updated the antimicrobial prophylaxis guidelines for these procedures.
- > CALHN continued to develop 'AMS Updates' fact sheets including one titled 'Extended Duration and Continuous Infusions of Antibiotics' and another on dosing of antimicrobials in obese patients. These have been adapted with acknowledgement by SAAGAR for statewide use.
- > NAPS was completed at the RAH in October and The Queen Elizabeth Hospital (TQEH) in November.
- > An ID registrar commenced virtual AMS rounds at the QEH. This involves reviewing the case notes of patients prescribed restricted antimicrobials without ID approval and making recommendations or advising the team to call ID for advice. Feedback on this initiative has been positive and outcome data are being collected.
- > CALHN have obtained ethics approval for two intern pharmacist projects:
 - Implementation of a pharmacy based beta-lactam antibiotic allergy de-labelling intervention.
 - Audit of compliance of pip/taz prescriptions in accordance with the CALHN Antimicrobial Restriction Guidelines in general medicine patients at the RAH.
- > A new guideline was developed by the AMS team: "Early management of suspected meningitis in immunocompetent adult patients".
- > The CALHN AMS committee is investigating the adoption of an App to host prescribing guidelines (similar to the App developed by Northern Adelaide Local Health Network), which has CALHN Executive and SAMAC support.
- > The Intensive Care Unit clinicians expressed concerns that IV amoxicillin-clavulanic acid, even when given 1.2g QID (four times daily) is not a sufficient dose for severely ill patients. A statewide formulary application for 2.2g vials was consequently submitted, restricted to prescribers in ICU to reduce risk of it being used incorrectly.

Southern Adelaide Local Health Network (SALHN)

- > SALHN have implemented weekly Quality Improvement (QI) NAPS to be completed during AMS ward rounds. A 12-month audit plan was prepared alternating between surgical and medical units using the QI-NAPS outline. For 2019 AMS rounds within the Acute Medical Unit (AMU) and remote rounds for NHS via Sunrise[®] were found to be the most valuable and offer the greatest number of potential interventions.
- > NAUSP reported a significant increase in meropenem use in SALHN throughout May 2019 within the Intensive and Critical Care Unit (ICCU), which was attributed to long-term patients on high doses. Usage subsided over the last couple of months, following regular ICCU AMS rounds with patient review. In 75% of cases it was noted that once meropenem was to be de-escalated, this was done within the next 24 hours. AMS rounds in the ICCU continue to be conducted three times each week.
- > 2018 NAPS was completed for both SALHN sites; Flinders Medical Centre and Noarlunga Health Services (FMC and NHS). The NAPS has not shown a significant improvement in documentation of review or stop dates, which will be a focus for education going forward.
- > SALHN received approval for a Restricted Antimicrobial Webpage to replace the PDF local restricted antimicrobial guidelines. The webpage will allow restrictions/exemptions on

antimicrobials to be updated as soon as anything changes on the formulary or within guidelines. The webpage went live in April 2019 and the platform is now available to be implemented by other LHNs.

- > Data was collected on the Surgical National Antimicrobial Prescribing Survey (SNAPS) audit on the Plastic Surgery unit to assess compliance to their local guideline which has been available for use since June 2018. The audit was completed in May and a formal report was prepared and presented to the Plastic Surgery Head of Unit.
- > 2018 SALHN AMS Annual Report was presented to the Clinical Council.
- > Health Round Table – It was noted that reported rates of aspiration pneumonia diagnosis at CALHN and SALHN is among the highest nationally, with the consensus that aspiration pneumonia is over diagnosed. This has potential financial implications for sites, and may also lead to pip/taz overuse.

Northern Adelaide Local Health Network (NALHN)

- > Following the successful implementation of an AMS Pharmacist across both NALHN sites, Lyell McEwin Hospital and Modbury Hospital (LMH and MH) are now able to contribute data to NAUSP. The AMS Pharmacist role has been made into an ongoing position.
- > As a result of AMS committee discussions with the NALHN cellulitis working group, the quantity of cefazolin vials in Emergency Department cellulitis packs (for outpatient management) has been increased. This was changed to avoid re-presentation to hospital due to insufficient cefazolin supply.
- > NALHN underwent its NSQHS accreditation survey in 2018 which resulted in four 'met with merit' recommendations achieved for antimicrobial stewardship. Surveyors noted distinction was demonstrated through innovation and leadership. Specific mention was also made of the AMS pharmacist role.
- > NAPS were completed at the Modbury and Lyell McEwin Hospitals.
- > Weekly AMS ward rounds have commenced at LMH with a current focus of reviewing vancomycin and meropenem orders.
- > Antimicrobials to be included in ADCs have been reviewed. The AMS committee agreed that restricted agents like IV amoxicillin/clavulanic acid are not appropriate for adding into ADCs in general ward areas since ID approval should be sought prior to supply. These agents were considered appropriate for ADCs in critical care areas. The AMS committee investigated the possibility of including a prompt for indication/ID approval codes when removing restricted antimicrobials from automated dispensing cabinets.
- > The 'NALHN Emergency Department Sepsis Pathway (Adults)' and 'NALHN Paediatric Sepsis Pathway' guidelines were approved, with subsequent staff education and implementation.
- > NALHN reported they completed febrile neutropenia, vancomycin and splenectomy vaccination/antibiotic prophylaxis audits.

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

- > WCHN reported they updated the quick reference cards in September with antibiograms – paediatric, neonate and adult.
- > WCHN are trying to adopt an interstate trial with IV to oral switch guideline. They collaborated with SALHN and NALHN to initiate a pre-intervention trial this year, looking at a limited

number of broad spectrum antibiotics as the baseline. This was the focus for the hospital at the 2019 Antibiotic Awareness Week.

Country Health South Australia Local Health Network (CHSALHN)

- > The decision to transition Country Health SA LHN into six new regional LHNs was made in July 2018. This was enacted from 01 July 2019 (outside of the timeframe of this report).
- > The AMS Action Plan (2017-2019) was reviewed and updated to assist with the governance reform process.
- > There was a focus on AMS capacity building in each of the six regions, exploring AMS opportunities in aged care settings, and engaging general practitioners.
- > CHSALHN advocated for more coordination of alerts and recalls and for the ongoing development of state-wide antimicrobial guidelines.
- > Mount Gambier was included in the funding grant application to implement AMS software (see *Electronic Decision support tools for AMS*) to pilot an electronic decision support system.
- > CHSALHN facilitated a workshop to expand training across each region for the NAUSP in preparation for transition to regional LHNs.
- > Regional sites considered whether there was capacity to participate in NAPS.

Private hospitals

- > The Adelaide Community Healthcare Alliance (ACHA) group focused on stewardship of prophylactic antibiotics for surgery. At smaller sites, stewardship is predominantly nurse-led. In orthopaedics, it was reported that prescribers are starting to utilise SAAGAR guidelines, moving away from gentamicin and cefazolin, and feeling more confident in using cefazolin alone. In urology, there is concern regarding the use of post-surgical antibiotics following trans-urethral resection of the prostate, with approximately 50% receiving a week of post-surgery trimethoprim.
- > A review of antimicrobial prophylaxis for cardiac surgery was conducted, which reported variable compliance to surgical prophylaxis guidelines in cardiac surgery, with some issues around timing and using triple therapy. The use of teicoplanin instead of vancomycin improved the timing of administration of prophylaxis; however teicoplanin is notably more expensive than vancomycin. Under-dosing of gentamicin and teicoplanin was noted. Ashford hospital is now doing trans-catheter aortic valve implantation, using teicoplanin.
- > A review of antimicrobial treatment of community acquired pneumonia (CAP) over the 2018 winter season was conducted, noting the use of ceftriaxone and azithromycin was extremely high and used inappropriately at all levels of prescribers.

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.
- > Regional steering committees have been established which identify the focus of the medication optimisation services. AMS is a frequently requested topic, particularly from aged care providers for support to meet their clinical care standards.
- > Multi-disciplinary educational sessions have been conducted in the Flinders and Far North and West Coast areas of South Australia, covering the treatment of urinary tract infections in

aged care settings and cellulitis. A workshop for nursing staff supporting AMS principles and antibiotic allergies was also delivered to increase awareness.

- > DATIS have delivered AMS education improving the management of urinary tract infections as part of Service Enhancement for Quality Use of Antibiotics in longer term care project (SEQUEL), a collaborative project partnering with Southern Cross Care.
- > 2018-2019 is the second year that SA Ambulance Service (SAAS) is represented on SAAGAR. SAAGAR is supportive of a study (INITIATE study) investigating the initiation of antibiotics by paramedics in SAAS for febrile neutropenia in cancer patients undergoing chemotherapy. SAAGAR look forward to the results of the study, to understand if earlier administration improves patient outcomes.

Supporting participation in the National Antimicrobial Prescribing Surveys (NAPS)

SAAGAR continues to encourage healthcare facilities in South Australia to participate in NAPS. The web-based surveys focus on antimicrobial prescribing in hospitals, aged care facilities, surgical prophylaxis and quality improvement. Following a low participation rate from South Australia in 2017 (only 12 SA sites participated), SAAGAR discovered some sites did not participate due to concerns regarding the need for ethics approval. SAAGAR subsequently liaised with the SA Human Research Ethics Committee to confirm in writing that participation in NAPS meets the requirement for audit and is not subject to ethics review. The written exemption applied to all SA Health facilities.

Electronic decision support tools to support AMS

SAAGAR submitted a grant application in the eHealth Innovation grant Program, seeking funding to pilot an electronic decision support system (Guidance MS[®]) to support prescribers at the point of prescribing to improve the appropriateness of antimicrobial use in South Australia. The proposed pilot was to implement the decision support, interfaced with electronic prescribing, at a metropolitan hospital and one country site, to investigate the feasibility and to evaluate the effectiveness on prescribing patterns. Unfortunately the application for funding was unsuccessful however SAAGAR is continuing to advocate for electronic support, either in the form of a statewide App or using similar software to Guidance MS[®], to support AMS strategies across the state.

Discussion

Future Direction

SAAGAR continue to promote antimicrobial stewardship practices in South Australia in an effort to minimise development of antimicrobial resistant organisms. Although a number of facilities within SA Health have their own antimicrobial prescribing guidelines (developed in accordance with local antimicrobial epidemiology), SAAGAR guidelines continue to be a useful resource for prescribers in smaller facilities, country sites, residential aged care and private hospitals. Statewide antimicrobial guidelines are frequently reviewed by SAAGAR as new evidence arises or local epidemiology changes. The 16th version of *Therapeutic Guidelines: Antibiotic* was published in April 2019, and provides a useful resource, particularly where there is a paucity of published evidence in the primary literature. In general, SAAGAR guidelines aim to align with the *Therapeutic Guidelines: Antibiotic* if appropriate within the South Australian context.

Going forward, SAAGAR will continue to provide expert advice to the SA Formulary Committee and welcome consultations from guideline-writing groups. SAAGAR also advises on order sets for

electronic prescribing, in accordance with local guidelines. The advisory group is exploring the potential feasibility of an App or electronic decision support tools to support prescribers across South Australia. In addition, increasing the reporting functionality from electronic prescribing software would enable more detailed analysis of the appropriateness of prescribing in SA Health facilities.

Challenges

Managing antimicrobial resistance requires an integrated approach across multiple sectors of human and animal health. Antimicrobial use in the community and long-term care facilities is associated with the development and spread of AMR within hospitals. For this reason, stewardship approaches must transcend service providers and sectors, often with limited resources. Human resources for the delivery of AMS across the state remain the biggest challenge for SAAGAR. SAAGAR members provide their expertise on a voluntary basis, in addition to other work commitments and without remuneration. The Infection Control Service of the Communicable Disease Control Branch, SA Department for Health and Wellbeing, provide executive support to SAAGAR however there is no dedicated funding for a statewide coordinator for AMS in South Australia.

SAAGAR will continue to advocate for heightened awareness of the importance of AMS in reducing the public health risk associated with multi-resistant organisms, which requires ongoing support from executive levels of governance within SA Health.

Appendix 1: SAAGAR members and attendance 2018 – 2019

NAME	14/08/2018	6/11/2018	12/02/2019	/05/2019
BUXTON, Michael <i>CHSALHN - Corporate Office</i>	A	A	✓	✓
CONNOR, Erin <i>DHA - Infection Control Service</i>	A	A	✓	✓
CONOLAN, Sarah <i>SALHN - Flinders Medical Centre</i>	✓	✓	✓	✓
COOPER, Dr Celia <i>WCHLN - Women's & Children's Hospital</i>	✓	A	A	A
COULSON, Leanne <i>SAAS - SA Ambulance Service</i>	A	A	✓	A
DANIEL, Dr Santhosh <i>SALHN - Flinders Medical Centre</i>	✓	✓	A	A
DOWNS, Ashley <i>DHA - Infection Control Service, minute taker</i>			✓	✓
FLAK, Stephanie <i>DHA - Infection Control Service</i>	✓	A	--	--
FLOOD, Louise <i>DHA – Communicable Disease Control Branch</i>	A	A	A	A
GORDON, Prof David <i>SALHN - Flinders Medical Centre</i>	A	A	A	A
GREEN, Collette <i>DHA - Infection Control Service</i>	✓	✓	✓	--
HANNAH, Dr Rory <i>NALHN - Lyell McEwin Hospital</i>	✓	✓	✓	✓
HILLOCK, Nadine <i>DHA - Infection Control Service</i>	✓	✓	✓	✓
KENNEDY, Dr Brendan <i>DHA - Communicable Disease Control Branch</i>	A	A	A	A
KOEHLER, Dr Ann <i>DHA - Communicable Disease Control Branch</i>	A	A	✓	A
LARCOMBE, Rebecca <i>SALHN - Flinders Medical Centre</i>	✓	✓	✓	A
PARADISO, Lisa <i>CALHN - Royal Adelaide Hospital</i>	✓	✓	✓	✓
LEE, Dr PC <i>Private, Clinpath Laboratories</i>	✓	✓	✓	✓
LORENZEN, Ulrik <i>WCHLN - Women's & Children's Hospital</i>	✓	A	✓	✓
MARTIN, Tim <i>NALHN - Lyell McEwin Hospital</i>	A	A	--	--
MCCONNELL, Dr Matthew <i>CHSALHN - Corporate Office</i>	✓	A	A	A
MCNEIL, Vicki <i>DHA - Infection Control Service</i>	✓	✓	✓	✓
PHILPOT, A/Prof Ross <i>CALHN - Queen Elizabeth Hospital</i>	✓	A	A	A
QUIRK, Hannah <i>DHA - Infection Control Service, minute taker</i>	✓	✓	--	--
ROBERTSON, Ms Lisa <i>SA Health, Formulary Pharmacist</i>	✓	A	A	A
ROWE, Dr Emily <i>CALHN - Royal Adelaide Hospital</i>	✓	✓	✓	✓
SCANDRETT-SMITH, Daniel <i>ACHA - Ashford Hospital</i>	✓	✓	✓	✓
TUCKER, Dr Emily <i>SALHN - Flinders Medical Centre</i>	A	A	A	A
VONG, Ms Sal Ging <i>NALHN - Lyell McEwin Hospital</i>	✓	✓	✓	✓



WARNER, Dr Morgyn (CHAIR) <i>CALHN - Queen Elizabeth Hospital</i>	✓	✓	✓	✓
WIERENGA, Ms Lauren <i>Drug and Therapeutic Information Service (DATIS)</i>		✓	A	✓
WILKINSON, Ms Irene <i>DHA - Infection Control Service</i>	A	A	✓	A
ADDITIONAL ATTENDANCE / GUESTS				
Rowett, Prof Debra <i>Drug and Therapeutic Information Service (DATIS)</i>	✓			
LIANG, Ms Ying (Jas) <i>NALHN – Proxy for Tim Martin</i>		✓		
RITCHIE, Dr Brett <i>WCHN - Women's & Children's Hospital</i>				✓

For more information

Infection Control Service
Communicable Diseases Control Branch
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