

**Approved Minutes of Scottish Antimicrobial Prescribing Group Meeting  
held on Tuesday 15 June 2021 at 1-3pm via MS Teams**

**Present:**

**SAPG Project Board**

Dr Andrew Seaton (Chair), Consultant Physician, NHS Greater Glasgow and Clyde

Dr Jacqueline Sneddon, Project Lead Scottish Antimicrobial Prescribing Group

Dr Gail Haddock (Vice Chair), General Practitioner, NHS Highland

Mr William Malcolm, Clinical Lead for SONAAR programme, ARHAI Scotland

Professor Marion Bennie, Chief Pharmacist, Public Health Scotland

Mrs Alison Wilson, Director of Pharmacy, NHS Borders

Mrs Christine Gilmour, Director of Pharmacy, NHS Lanarkshire

Ms Elizabeth Burgess, AMR/HCAI Policy Unit, Scottish Government

Dr Keith Morris, AMR/HCAI Medical Adviser for Scottish Government

Ms Sabine Nolte, Principal Educator, NHS Education for Scotland

Sofie French, Principal Educator (ARHAI), NHS Education for Scotland

**SAPG Support Services**

Dr Lesley Cooper, Health Services Researcher, Scottish Antimicrobial Prescribing Group

Ms Marion Pirie, Project Officer, Scottish Antimicrobial Prescribing Group

**National Services Scotland**

Ms Polly Russell, Information Analyst, ARHAI Scotland

**Antimicrobial Management Teams**

Dr Ursula Altmeyer, Consultant Microbiologist, NHS Ayrshire and Arran

Dr Vhairi Bateman, Consultant in Infectious Diseases and Microbiology, NHS Grampian

Dr Adam Brown, Consultant Microbiologist, NHS Highland

Dr Stephanie Dundas, Consultant in Infectious Diseases, NHS Lanarkshire

Dr Morgan Evans, Consultant in Infectious Diseases, NHS Lothian

Dr David Griffith, Consultant Microbiologist, NHS Fife

Mrs Alison MacDonald, Area Antimicrobial Pharmacist, NHS Highland

Dr Busi Mooka, Consultant Physician, NHS Tayside

Susan Coyle, Antimicrobials Pharmacist, NHS Dumfries & Galloway (*deputising for Sharon Irvine*)

**Representing professional groups and specialties**

Mrs Alison Cockburn, Antimicrobial Pharmacist, NHS Lothian (Association of Scottish Antimicrobial Pharmacists)

Ms Susan Kafka, Senior Clinical Pharmacist for Paediatric Oncology/Haematology, NHS GG&C (Paediatrics)

Dr Mairi Macleod, Consultant Microbiologist, NHS Greater Glasgow and Clyde (Scottish Microbiology and Virology Network)

Dr Linda Bagrade, Consultant Microbiologist, NHS GG&C (*deputising for Ben Parcell*)

Dr Charis Marwick, Clinical Senior Lecturer, University of Dundee (Research representative)

Mrs Jo McEwen, Antimicrobial Nurse Specialist, NHS Tayside (Scottish Antimicrobial Nursing Group)

Ms Laura Pelan, Prescribing Support Pharmacist, NHS GG&C (Scottish Prescribing Advisers Association)

Professor Andrew Smith, Consultant Microbiologist, NHS Greater Glasgow and Clyde (Dental)

Mr Samuel Whiting, Infection Control Manager, NHS Borders

Mr Bob Wilson, Infection Control Manager, NHS Ayrshire & Arran

Mrs Diane Stark, Infection Prevention and Control Nurse, NHS Highland (Infection Control Nurses)

Dr Sarah Whitehead, Consultant Microbiologist, Golden Jubilee and the Scottish Ambulance Service

**Guests:**

Nikki Gilluley, HEPMA Pharmacist, NHS Lothian

Amel Ibrahim, pre-registration pharmacist, NHS Tayside

Alpana Mair and Iain Wilson, from Effective Prescribing and Therapeutics Policy team, Scottish Government,  
 Karen Gronkowski and Aidan Morrison, Information Analysts, SONAAR Programme  
 David Jackson, Renal Pharmacist and Leadership Fellow, Welsh Government  
 Cheryl Johnston, Healthcare Scientist (microbiology), SONAAR Programme

**Apologies:**

Dr Conor Doherty, Consultant in Paediatric Infectious Diseases, NHS Greater Glasgow and Clyde  
 Dr John Harden, Consultant in Emergency Medicine, NHS Lanarkshire, and National Clinical Lead for Quality & Safety Scottish Government  
 Mr Russell Mackay, Specialist Clinical Pharmacist, NHS Orkney  
 Mrs Ruth Robertson, Health Protection & HAI Education Programme Manager, NHS Education for Scotland  
 Dr Becky Wilson, Consultant Microbiologist, NHS Grampian & NHS Orkney  
 Dr Scott Davidson, Deputy Medical Director of Acute Services in GGC  
 Dr Chris Deighan, Deputy Medical Director of Corporate Services in GGC  
 Ms Julie Wilson, AMR Manager, ARHAI Scotland  
 Professor Hazel Borland, Nurse Director, NHS Ayrshire and Arran  
 Dr Wendy Beadles, Clinical Lead Infectious Diseases, NHS Highland  
 Ms Ysobel Gourlay, Lead Antimicrobial Pharmacist, NHS Greater Glasgow & Clyde  
 Dr David Fallaha, Consultant Anaesthetist, Golden Jubilee  
 Mrs Rebecca Houston, Lead Antimicrobial Pharmacist, Golden Jubilee National Hospital  
 Dr Sharon Irvine, ID Consultant, NHS Dumfries and Galloway  
 Dr Robbie Weir, Consultant Microbiologist, NHS Forth Valley  
 Dr Ben Parcell, Consultant Microbiologist, NHS Tayside (Infection Control Doctors group)  
 Dr Deirdre O'Driscoll, General Practitioner, Glasgow  
 Mr Jim Findlay, Public Partner, HIS

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| 1 | <p><b>Welcome, apologies for absence and declaration of interests.</b><br/>         The Chair welcomed members and guests.<br/>         Cheryl Johnston, Healthcare Scientist (microbiology), SONAAR Programme will present item 4 on behalf of Julie Wilson<br/>         Chair noted that meeting will be recorded and asked for members to advise on any Declarations of Interest prior to relevant agenda item.</p>  |
| 2 | <p><b>Minutes and actions from previous meeting</b><br/>         Minutes of the meeting on 20.04.21 were approved.</p>  |
| 3 | <p><b>Update on antibiotic use during COVID-19</b><br/>         WM presented the most recent data on the impact of the pandemic on antibiotic use in both primary and secondary care in Scotland, comparing 2019, 2020 and 2021.<br/> <b>E-message GP weekly data</b> on five commonly used respiratory antibiotics has remained stable with no seasonal increase. Last 3-4 weeks seen a slight increase. Non-respiratory antibiotics has remained largely unchanged.<br/> <b>Primary care data from Prescribing Information System</b> (runs 3 months in arrears)<br/>         Total antibiotic use and respiratory following the same curve as e-message GP weekly data.<br/> <b>Total antibiotic use for paid items in dentistry</b> (runs 3 months in arrears). In March 2021 still 40% more prescription items than 2019 and 2020. Amoxicillin follows the same curve as total antibiotic use although Q1 2021 slight decrease which is due to Pen V use. Metronidazole same curve as total antibiotic use. Prior to October 2020 very little Pen V use (100 items per month) across Scotland. SAPG Dental sub group issued guidance to dentists recommending Pen V as first line treatment. Immediate impact which has remained static (2000 items per month).<br/> <b>Hospital data</b><br/>         Total acute hospital antibiotic DDDs, raw data for Q1 2021 is still lower than pre COVID levels. If the data is presented as number of DDDs per 1,000 occupied bed days (OBDs) in Q1 2021 antibiotic use returning to pre COVID levels.<br/>         Specific recommended antibiotics DDDs per 1,000 OBDs, reduction in Q1 2021. Meropenem DDDs overall reduction although once presented as DDDs per 1,000 OBDs the rate of meropenem is very similar to pre COVID levels.</p> |

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|   | <p>Piperacillin/ tazobactam DDD per 1,000 OBDs remains higher than pre COVID levels. Total antifungal use in acute hospitals saw increase in use Q1 2021. Fluconazole remained the same. Increase in other azoles especially posaconazole and also of echinocandins.</p> <p>WM thanked Polly Russell and Karen Gronkowski for pulling data together. MP will circulate presentation.</p> <p>KM suggested uptick may reflect the increase in Delta variant of COVID and inappropriate use of antibiotics before COVID diagnosis. GH advised younger patients are presenting with symptoms more like an URTI than 'classic' COVID. WM suggested increase could be due to various factors such as children returning to school and lifting of restrictions. MMAcL queried whether piperacillin/tazobactam DDDs could be affected by greater awareness of need for 6-hourly dosing for Pseudomonal cover. BM queried reporting of positive fungal isolates or markers. MMAcL noted not all cases captured but confirmed in Glasgow culture positives in COVID positive patients found which did not align with the national data. Fungal markers nationally are not easy to capture and unable to monitor. CJ confirmed markers coming across into ECOSS vary per health board.</p> <p>Several members commented on increase in endocarditis cases, many in patients with pre-existing valve disease and many due to mouth flora. Chair suggested useful to consider a specific piece of work to evaluate the possible association.</p>  |
| 4 | <p><b>Surveillance data on co-infection and secondary infection in COVID-19 patients</b></p> <p>CJ reported the aim was to:-</p> <ol style="list-style-type: none"> <li>1. Determine the proportion of COVID-19 patients with a bloodstream or respiratory co-infection and/or secondary infection in Scotland.</li> <li>2. Describe the distribution of pathogens associated with co-infection and secondary infection in COVID-19 cases and compare to the comparator population.</li> <li>3. Assess the impact of the COVID-19 pandemic on AMR in co-infection and secondary infection cases.</li> </ol> <p>Within the limitations of the data the analysis showed low frequency of COVID-19 related confirmed bacterial bloodstream or respiratory co-infection and/or secondary infection. In addition there were no signals that AMR has increased in relation to the pandemic.</p> <p>Chair thanked CJ and queried if there is data on the cohort who were hospitalised specifically. CJ confirmed this is still being worked on and there is a current study in collaboration with the Scottish Intensive Care Society Audit Group (SICSAG) on patients in critical care. CJ also advised hospital onset data was used as a marker for nosocomial COVID using day of admission to positivity. BM queried if the SICSAG data set will look at both lab diagnosis and clinician perception on whether there was co-infection and if data could be linked with prescribing. WM agreed to check. VB queried if there were any plans to review impact of tocilizumab but CJ confirmed this was not currently planned although the analytic team are considering looking at comparisons between waves one and two. Chair also suggested linkage of the community onset (non-hospitalised +/- hospitalised) patients and antibiotic prescribing. WM advised MB is leading on work by Public Health Scotland (PHS) to develop a national DataMart on the use of medicines at patient level. MB agreed to take on a list of potential questions via WM and the team.</p> <p><b>Action: Members to send proposed questions for national datamart via email to WM</b></p> |
|   | <p><b>Items for discussion and agreement:</b></p>  |
| 5 | <p><b>Review of SAPG guidance</b></p> <p>Chair reported there were two pieces of guidance which were updated in October 2020, which he and JS have refreshed and will continue do so as information evolves.</p> <ul style="list-style-type: none"> <li>• <b>Advice on community respiratory infections and COVID-19</b></li> </ul> <p>GH queried the wording around appropriate use of steroids in care homes as the advice is slightly contradictory. Chair agreed and will reword. AMacD suggested evolving information on different symptoms associated with the Delta variant should be included. Chair agreed to review and add.</p> <ul style="list-style-type: none"> <li>• <b>Advice on hospital Antimicrobial Stewardship COVID-19</b></li> </ul> <p>AMacD suggested including statement on aspirin and colchicine. VB suggested adding convalescence plasma in context of covering trial outcomes. Chair agreed to both and also noted recent Central Alerting System (CAS) which continues to recommend remdesivir for patients with an oxygen requirement in hospital but not in critical care and not in patients who have an obvious</p>  |

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|   | <p>downward clinical trajectory. Remdesivir is still permitted to be used beyond 5 days in immunocompromised patients with COVID. Other addition in CAS alert, is the Medicines and Healthcare Products Regulatory Agency (MHRA) advice permitting a second course of remdesivir if patients are re-infected. Chair agreed will also add new CAS information.</p> <p><b>Action: AS and JS to revise both advice documents as agreed and publish on SAPG website</b></p>  |
| 6 | <p><b>Revision of SAPG website structure</b></p> <p>JS reported at the following SAPG meeting there was discussion around accessing the secure area of the SAPG website and the best option is to wait until SharePoint is available.</p> <p>Another point raised by members was locating guidance on the website. A mapping exercise was carried out and shared with the Association of Scottish Antimicrobial Pharmacists (ASAP). Majority of documents are filed under the section "Quality Improvement" and most people are unaware that guidance is part of quality improvement. A simple remedy is to rename this section. Acknowledges there is also room for improvement within files and will review this. Once updated will circulate to members for review and comment.</p> <p><b>Action: JS and MP to revise Quality Improvement section of website</b></p>  |
| 7 | <p><b>Output from HEPMA session at network event</b></p> <p>JS reported that a summary of discussions the AMT Network Event on HEPMA has been produced. Key point is that gentamicin requires further discussion and should be considered as a topic for the next SAPG national event. JS will present this summary at the ADTC Collaborative HEPMA Learning System meeting in a couple of weeks' time which will allow SAPG to share with those working on HEPMA more widely within the Health Boards. If there are any further comments on the paper or experiences of HEPMA please send to JS/MP.</p>   |
| 8 | <p><b>Microbiology reporting and European Committee of Antimicrobial Susceptibility Testing (EUCAST) changes</b></p> <ul style="list-style-type: none"> <li>• <b><u>SBAR Aminoglycoside use in empirical guidelines</u></b></li> </ul> <p>MMAcL reported that EUCAST is the European body that sets antimicrobial breakpoints which labs use to report Sensitive (<b>S</b>) and Resistant (<b>R</b>) organisms. EUCAST recently updated dosing recommendations for use of aminoglycosides including that they should not be used as monotherapy for treatment of infection originating from outside the urinary tract. The rationale is the paucity or lack of clinical data on patient outcomes. EUCAST have also suggested that although amoxicillin has a high resistance rate in coliforms there may be untested additional activity when used as combination therapy.</p> <p>The SMVN and SAPG short life working group (SLWG) have discussed the EUCAST changes and concluded there was confidence in the use of gentamicin in Gram negative sepsis and agreed it should continue to be included in local empirical prescribing guidelines. In addition, EUCAST have recommended gentamicin dosing of 6-7mg/kg once per day but many Boards in Scotland use 5mg/kg. Although EUCAST advise 6-7mg/kg their PKPD (pharmacokinetic/pharmacodynamic) modelling data is based on 5mg/kg. Given Scotland's experience of positive outcomes in using 5mg/kg and not seeing breakthrough infections, the SLWG recommend continuing with current dosing guidance, acknowledging that there are two agreed dosing regimens (5mg/kg and 7mg/kg). Also recommend that it remains acceptable for boards to continue with gentamicin-based empirical therapy where Gram negative infection may be suspected (e.g. intra-abdominal sepsis, urinary infection, infection unknown source) without additional Gram negative cover except in specific high-risk situations (e.g. Neutropenic sepsis and fever in immunocompromised host). Gentamicin monotherapy should only be used for targeted therapy for confirmed Gram negative infection of urinary source but its duration should continue to be limited and IV to oral switch optimised to reduce risk of toxicity. BM suggested there are other reasons patients may remain on gentamicin monotherapy based on infection specialist advice. MMAcL confirmed this had not been included but agreed helpful to add this point. MMAcL will take to SMVN AMR sub group and then more widely to SMVN group for comment and once approved will be badged as both SAPG and SMVN guidance.</p> <ul style="list-style-type: none"> <li>• <b><u>Changes to antibiotic susceptibility reporting from microbiology laboratories</u></b></li> </ul> <p>MMAcL has updated and streamlined version of the document that was circulated at SAPG meeting in April. Noted there are several drug bug combinations where agents are only reported as <b>I</b> or <b>R</b> and never as <b>S</b> and this is addressed within table. This will be available to AMTs once labs move over</p> |

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|                 | <p>to <b>S, I</b> and <b>R</b> interpretation. BioMérieux automated systems should hopefully confirm the final breakpoints set this week, which will go to SMVN AMR sub group for approval and then arrange roll out and implementation. Discussion of practical use of piptazo via 3-hour infusion and agreed to add note that only for use in critical illness. Also raised that higher dose of amoxicillin only required in Haemophilus infections. MMacL confirmed that lab reports will include comments to inform on these issues. JS queried if it would be helpful for AMTs to go back to including a comments column in the document with specific caveats. This was supported.</p> <p><b>Action: MMacL will add caveats column to table</b></p> <p><b>Action: Following sign off of both documents by SMVN MMacL will share with JS to format as joint SAPG &amp; SMVN guidance.</b></p>   |
|                 | <p><b>Items for update:</b></p>  |
| <p><b>8</b></p> | <ul style="list-style-type: none"> <li>• <b>Scottish Government</b></li> </ul> <p>EB reported:</p> <ol style="list-style-type: none"> <li>1. UK Government’s AMR national action plan (NAP) has reached its mid-point. Commitments and progress made to date reviewed to inform renewed focus for the second half of NAP timeline.</li> <li>2. UK government Advisory Committee on Antimicrobial Prescribing, Resistance and Healthcare Associated Infection (APRHAI) are considering renewed focus and a downward revision of the 50% Gram negative bacteraemia reduction target.</li> <li>3. The G7 health ministers met recently and AMR was one of four items they discussed <a href="https://www.gov.uk/government/publications/g7-health-ministers-meeting-june-2021-communicue">https://www.gov.uk/government/publications/g7-health-ministers-meeting-june-2021-communicue</a> Note G7 agreement to bring forward novel financing mechanisms to encourage new antimicrobials into the supply chain, consider drivers of AMR through the environment and possible international standards for pharmaceuticals in the environment.</li> <li>4. SG are re-starting meetings of stakeholders interested in drivers of AMR in the environment i.e. Scottish Environment Protection Agency, Scottish Water and pharmaceutical companies.</li> <li>5. A briefing has been sent to Chief Nursing Officer for sign off on plans to broaden the “Keep Antibiotics Working” Campaign this year to include messages on animal health and transmission through the environment in line with the One Health approach.</li> <li>6. Action for EB from April SAPG meeting to provide an update on the workforce strategy exercise looking at infection prevention control, health protection and antimicrobial stewardship. Work being led by Irene Barkby, Associate Chief Nursing Officer and the review has now separated into subgroups focussing on e-resources and workforce planning. For e-resources focus is data collection on what systems are currently being used (including prescribing systems), how these link together, where improvements required and where the gaps are. For the workforce group, plan to establish where skills, educational and resourcing (staff and educational) gaps are. Important to note that request is not simply to ask people to reflect on the pandemic experience but also where the gaps were pre pandemic.</li> </ol> <p>KM reported that the Academy of Royal Colleges is updating the Sepsis 6 Guidance, and important for AMR and antimicrobial stewardship (AMS) as prescribing antibiotics for sepsis often leads to excessive use. Within Healthcare Improvement Scotland (HIS) sepsis is included in deteriorating patient workstream. Chair asked who the lead was on updating Sepsis 6 guidance and KM advised Gregor McNeill, Intensivist, NHS Lothian. Chair suggested SAPG need to make formal contact and KM agreed to pass on details.</p> <p>Chair noted although he has been unable to attend workforce planning group, WM, BM and JMCE attended. The aim was initially to address workforce challenges for IPC but remit broadened to include AMS and Health Protection. Following broad discussion members concluded key issues for workforce were that many AMT leads and Infection Control Doctors have no protected time within their job plan; number of AMS nurses should reflect the size and complexity of the boards; and that roles of AMS nurses and pharmacists at various AFC bands requires to be defined. Agreed that reviewing original policy documents (APP&amp;P and ScotMARAP) including competencies would be helpful to update and inform what an AMT should look like in current context. EB confirmed this would be really helpful.</p> <p><b>Action: Chair and JS will set out high level strategic document with input from AMT colleagues.</b></p> |

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|          | <ul style="list-style-type: none"> <li>• <b><u>Dental stewardship</u></b><br/>AS reported that WM had highlighted in his earlier presentation, the continued increase in dental antibiotic prescribing. AS suggests due to triple AAA advice (advice, analgesia, antibiotics) that was issued during the pandemic which has undermined the earlier stewardship message of ‘Antibiotics do not cure toothache.’ Dental stewardship group will meet on 16 June 2021.</li> <li>• <b><u>OPAT</u></b><br/>Chair reported there are currently three main pieces of work: <ol style="list-style-type: none"> <li>1. LC currently developing a rolling audit tool</li> <li>2. Key performance indicators are being agreed</li> <li>3. Drug monographs for OPAT agents</li> </ol>           SG are organising regional interface care workshops. OPAT is a central piece of interface care.         </li> <li>• <b><u>Education sub-group</u></b><br/>JS reported the group have yet to meet again. Updated gentamicin and vancomycin resources now available via TURAS and soon also on Learnpro. Updated ScRAP programme resources including new Paediatric UTI section will go live soon.</li> <li>• <b><u>Association of Scottish Antimicrobial Pharmacists</u></b><br/>AC reported group met on 07 June and for the first part of the meeting joined with the SANG group. Very positive development and will hopefully improve communication and joint initiatives. Interesting presentation from Rachael Rodger, Antimicrobial Pharmacist in GG&amp;C, on development of a database to enable data collection and measurement of antimicrobial stewardship quality improvement activities. National antibiotic pre-packs list has been finalised and sent to Tayside Pharmaceuticals, expect this to be confirmed by August. Work on improving access to rarely used antimicrobials is in progress, and will bring a paper to SAPG. Looking at locations on a national level and also quantities of these items that could potentially be kept in the boards. NP undertaking work on monographs for OPAT and shared current piece of work on teicoplanin. Chair asked if considering merging ASAP and SANG. AC said it is more about joint working but not ruling out anything in the future.</li> <li>• <b><u>Scottish Antimicrobial Nurses Group</u></b><br/>JMcE reported that due to both SANG and ASAP having duplication in their common business element, it made sense to have a joint meeting which will make both groups more efficient and an opportunity for collaborative working. SANG have been discussing the recent workforce analysis outputs and have developed a questionnaire to allow benchmarking of undergraduate and postgraduate nursing curricula around AMS and AMR content. NES involved in distribution through the relevant networks for higher education institutes. SANG have been invited to be part of a national tissue viability network to look at management of chronic wounds and use of antimicrobial dressings. Jayne Walden who will be representing SANG, will feedback to SAPG when outputs are finalised.</li> <li>• <b><u>SMC advice</u></b><br/>No new advice to update on.</li> </ul> |
|          | <p><b>Items for information:</b></p>  |
| <p>9</p> | <p><b>AOCB</b></p> <ul style="list-style-type: none"> <li>• <b><u>Oral antibiotics for bowel prep in colorectal surgery</u></b><br/>VB raised the subject that licensed neomycin is no longer available and as this is a Scotland wide issue, looking for advice from SAPG and colleagues in other boards around alternatives including use of unlicensed neomycin products. Following broad discussion agreed that as surgical opinions and practice varies widely between boards in use of antibiotics or not therefore a solution should be agreed locally.</li> <li>• <b><u>Healthcare Associated Infection HAI Standards</u></b><br/>JS reported that the HAI Standards 2015 are being updated and both she and AC have been involved with this as one section is around antimicrobial use. The key new aspect of the Standards is that it covers all settings including care homes. There will be an open consultation and once available will be circulating to members for comments.</li> </ul>   |

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|           | <ul style="list-style-type: none"> <li>• <b><u>GP representative on SAPG</u></b><br/> JS advised in the process of recruiting a new GP representative, as GH will be stepping down shortly. JS took the opportunity to formally thank Gail for all her work she has undertaken for SAPG since its inception in 2008.</li> <li>• <b><u>SG Professional Advisers Group (PAG)</u></b><br/> KM reported that he attended this group who advise SG to discuss the AMR National Action Plan and reducing healthcare associated infections. One question raised was whether any group was looking at antibiotic prophylaxis recommendations in the community. Members were not aware of any specific work in this area. Chair advised that he and JS will be attending the PAG meeting at the end of June to share outputs and current work by SAPG.</li> </ul> |
| <b>10</b> | Date of next meeting – <b>24 August 2021</b><br>Following meeting – 26 <sup>th</sup> October 2021<br>AMT Network Event - 09 November 2021  |