NOT PROTECTIVELY MARKED

Public Board Meeting	**May 2019** **Item No 05**
THIS PAPER IS FOR DISCUSSION	
TOWARDS 2020: TAKING CARE TO THE PATIENT AND QUALITY IMPROVEMENT	
Lead Director **Author**	Pauline Howie, Chief Executive Executive Directors
Action required	The Board is asked to discuss progress within the 2020 delivery programme and:- 1. Discuss actions being taken to make improvements. 2. Discuss work being taken to transform the Service in the 3 strategic work streams.
Key points	This paper highlights performance for our Hear and Treat and See and Treat performance measures and includes updates from the Clinical Services Transformation Programme, Enabling Technology and Workforce Development strategic work streams. Each programme has active risk registers which are reviewed at each of the Programme Boards. <u>Clinical Services Transformation</u> • 34.9% of patients were managed at home or an alternative to hospital in April 2019. • A change was made in December 2018 to transfer additional calls to NHS 24 in order that patients receive the most appropriate care. The data shows this has made a positive impact on Hear and Treat outcomes and the first four data points of 2019 show improvement is being sustained with over 15% of callers receiving a Hear and Treat outcome – this is the highest percentage recorded, excluding the special cause variation seen over the last two winters, and surpasses our aim of 15%. • SCOTSTAR North hub went live on 23 April 2019. SCOTSTAR North will provide an enhanced response to trauma patients in the North of Scotland, as well as increasing capacity to manage emergency medical retrievals across Scotland. • Further prompts to dispatch a Specialist Paramedic response for patients triaged within the yellow response category, where this skillset has been identified as appropriate, were added to the system on 16 April 2019.

	<u>Enabling Technology</u> • Ambulance Telehealth Programme – A review of the Back Office delivery has taken place, various technical issues are being addressed and the aim is now to trial in-vehicle access to the Service's rostering system and Datix before completing the roll out during summer 2019. • The electronic patient record major incident module development has been restarted with roll out now expected to be completed during summer 2019 subject to testing and approval by the National Risk and Resilience Department. • Emergency Service Network (ESN) Programme – Local programme timescales are not yet known due to significant timescale slippage in the GB wide Emergency Service Mobile Communications Programme (ESMCP). The Airwave National Shutdown Date will be extended to 31st December 2022. The ESMCP Team have indicated that they now expect their revised ESMCP Full Business Case (FBC) to be approved during autumn. Current concerns include coverage gaps, Air to Ground provision, resilience and ESN costs. A Scottish working group involving Scottish Government and the three emergency services has been set up to provide FBC assurance. • Provision of an ESN compatible Integrated Communications Control System (ICCS) Service staff are fully engaged with the UK Government Ambulance Radio Programme (ARP) team with a view to employing their 'ESN ready' Frequentis LifeX ICCS solution. The target timescale for implementation is December 2020. • Defibrillator Replacement – Following Final Business Case (FBC) approval by the Board, work is ongoing to finalise the new defibrillator contract with Ortus. Work is also underway to plan the defibrillator training, integration and roll out. Roll out is expected to be completed by March 2020. <u>Workforce Development</u> • We are now in the implementation phase for delivery of recruitment and training targets for 2019-21, with particular focus of maximising our Paramedic intakes as we progress the plan for transition to the new Paramedic Education Model; • Our next phase of developing our learning infrastructure commenced in April 2019 with the roll out of our new service wide learning management system.
Timing	The Board receive an update at every meeting on the key programmes of work for the 2020 Strategy.

Link to Corporate Objectives	The Corporate Objectives this paper relates to are: 1.1 Engage with partners, patients and the public to design and co-produce future service. 1.2 Engaging with patients, carers and other providers of health and care services to deliver outcomes that matter to people. 1.3 Enhance our telephone triage and ability to See and Treat more patients at home through the provision of senior clinical decision support. 2.1 Develop a bespoke ambulance patient safety programme aligned to national priorities. Early priorities are Sepsis and Chest Pain. 2.4 Develop our mobile Telehealth and diagnostic capability. 3.1 Lead a national programme of improvement for out of hospital cardiac arrest. 3.2 Improve outcomes for stroke patients. 3.4 Develop our education model to provide more comprehensive care at the point of contact. 3.5 Offer new role opportunities for our staff within a career framework. 4.1 Develop appropriate alternative care pathways to provide more care safely, closer to home building on the work with frail elderly fallers - early priorities being mental health and COPD. 5.1 Improve our response to patients who are vulnerable in our communities. 6.2 Use continuous improvement methodologies to ensure we work smarter to improve quality, efficiency and effectiveness. 6.3 Invest in technology and advanced clinical skills to deliver the change.
Contribution to the 2020 vision for Health and Social Care	This programme of work underpins the Scottish Government's 2020 Vision. This report highlights the Service's national priority areas and strategy progress to date. These programmes support the delivery of the Service's quality improvement objectives within the Service's annual Operational Delivery Plan.
Benefit to Patients	This 'whole systems' programme of work is designed to support the Scottish Ambulance Service to deliver on the key quality ambitions within Scottish Government's 2020 Vision and our internal Strategic Framework "Towards 2020: Taking Care to the Patient", which are to deliver safe, person-centred and effective care for patients, first time, every time. A comprehensive measurement framework underpins the evidence regarding the benefit to patients, staff and partners and supports the Service's transition towards 2020.
Equality and Diversity	This paper highlights progress to date across a number of work streams and programmes. Each individual programme is required to undertake Equality Impact Assessments at appropriate stages throughout the life of that programme. In terms of the overall approach to equality and diversity, key findings and recommendations from the various Equality Impact Assessment work undertaken throughout the implementation of Towards 2020: Taking Care to the Patient are regularly reviewed and utilised to inform the equality and diversity needs.

SECTION 1 - SAS T1 Reduce hospital admissions - % of unscheduled calls not conveyed

Chart 1.1 % Incidents with a Referral or Discharge Outcome

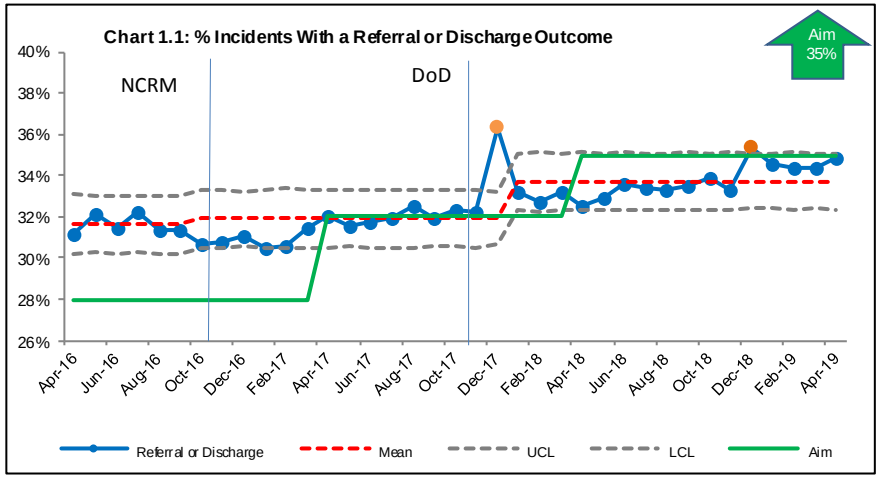


Chart 1.2 % Incidents with a Hear & Treat Referral or Discharge Outcome

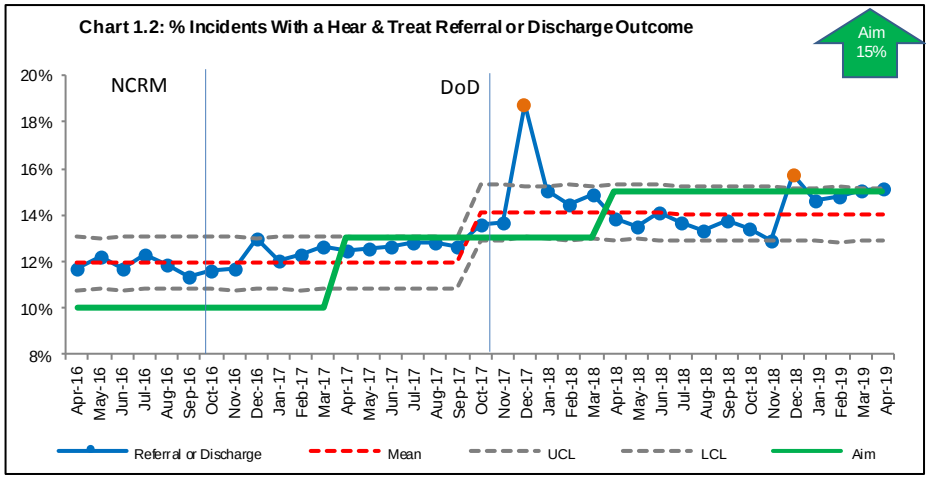
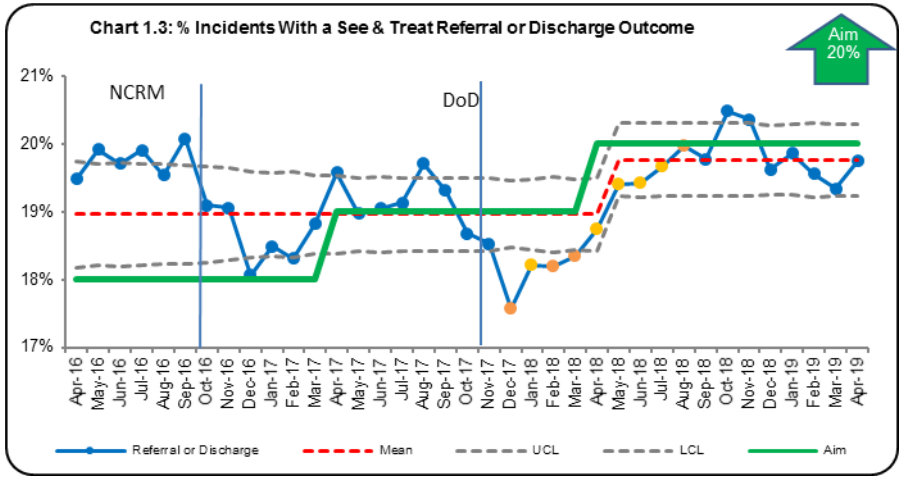


Chart 1.3 % Incidents with a See & Treat Referral or Discharge Outcome



What is the data telling us – For incidents with a referral or discharge outcome (Chart 1.1) the data demonstrates that performance stabilised around the mean of 33.4% following winter 2017/18 when special cause variation was observed. Another peak exhibiting special cause variation was observed in December 2018. January – April 2019 data points are back within normal control limits with 34.9% of patients managed at home or by an alternative to the Emergency Department in April 2019. The last five data points are above the mean and we will continue to monitor the data to determine if this is a sustainable positive shift (eight points or more above the mean).

For incidents with a Hear and Treat referral or discharge outcome (Chart 1.2) the data shows a similar pattern to that seen in Chart 1.1. Following the special cause variation seen in December 2018, performance in 2019 is back within normal control limits with 15.1% of patients receiving a Hear and Treat referral or discharge outcome in April 2019. This is the highest percentage recorded, excluding the special cause variation seen over the last two winters, and surpasses our aim of 15%.

For incidents with a See and Treat referral or discharge outcome (Chart 1.3), the data shows variation within normal limits, following re-calculation of the mean after the previous positive statistical shift observed, and performance continues to remain stable at this increased level. In April 2019 19.8% of patients received a See and Treat referral or discharge outcome.

Why – After the significant winter pressures in 2017/18, the Service has made improvements in transferring calls to NHS 24 for patients to receive the most appropriate care, as well as creating capacity for clinical advisors to provide clinical assessment by telephone. A further change to transfer more calls to NHS 24 was made on 11 December 2018. The data shows this has made a positive impact on Hear and Treat outcomes and the first four data points of 2019 suggest this improvement is being sustained.

The Service continues to support staff in providing the most appropriate care for patients following face to face assessment by developing clinical decision making skills. The Clinical Decision Making Framework was distributed to all staff in October 2017 and has been delivered through learning in practice training. This framework is now being reviewed and refreshed to further support staff.

In addition, a test of change targeting Specialist Paramedics to patients with low acuity illness and injury that are likely to be able to be safely treated at home or in the community, has been underway since 17 July 2018. A second system change took place on 14 November, with a further system change on 16 April 2019 to increase the cohort of low acuity patients that Specialist Paramedics will be dispatched to within the yellow response category, as well as a new process of dispatching Specialist Paramedics to these cohorts of patients via the Alternative Response Desk which went live on 19 November 2018.

What are we doing and by when - Programmes of improvement and transformation are underway for both Hear and Treat and See and Treat outcomes through the Clinical Services Transformation (CST) programme in 2019/20. More information is provided in Section 2 below (pages 6 to 14).

Section 2 Clinical Services Transformation

1. **Out of Hospital Cardiac Arrest** - Lead a national programme for improvement for Out Of Hospital Cardiac Arrest

Background – Out Of Hospital Cardiac Arrest (OHCA) remains a significant healthcare challenge in Scotland. Approximately 3,000 patients undergo attempted resuscitation each year after OHCA. The survival rate in Scotland from this condition is approximately 8%, compared to the UK average of 9%, with some other European centres claiming to return almost a quarter of all people who have experienced an OHCA home alive.

Aim - In response to this, the Service chaired a multi partner group hosted by Scottish Government to develop a national Out of Hospital Cardiac Arrest Strategy. Out of Hospital Cardiac Arrest - A Strategy for Scotland was published in 2015 and sets out the following high level aims:

- We aim to increase survival rates after OHCA by 10% across the country within five years. Reaching this level of performance would mean around 300 more lives being saved every year compared to recent years, with a 1,000 additional lives saved by 2020.
- We aim to equip an additional 500,000 people with CPR skills by 2020. Increasing the rate of bystander CPR is the cornerstone of improving outcomes because prompt bystander CPR can increase the likelihood of survival after OHCA by 2 or 3 times.

Status - A programme of work is underway across the following areas:

1. **Cardiac Arrest Registry:** Linking ambulance service data with other datasets to allow patient outcomes to be measured and system performance and Service changes to be monitored.

2. **Telephone CPR, telephone dispatch and PAD utilisation.** The Ambulance Control Centre (ACC) is the hub of the co-ordination of all the resources involved in the pre-hospital care of out of hospital cardiac arrests. ACC call handlers need to be effectively trained and supported and then reliably use the best triage tools available so that they can rapidly identify OHCA, initiate telephone Cardiopulmonary Resuscitation (CPR) and task appropriate resources. ACC call handlers also need up to date and accurate information about available resources requiring the mapping of community first responders and defibrillators.

3. **High performance CPR, Feedback and Second-tier response**. Rapid deployment of responders with the appropriate skills to perform high quality resuscitation. Robust clinical governance and feedback systems to maintain skills, motivation and morale. The use of second-tier responding by Specialist Paramedics where appropriate.

4. **PAD programme, Bystander CPR, Community Engagement.** Concerted effort to increase bystander CPR rates by supporting and strengthening existing community assets. Engaging with partner organisations through a full partnership in the Save a Life for Scotland (SALFS) initiative. Developing systems to ensure that best use is made of Public Access Defibrillators (PADs) including:

governance for mapping and maintenance, encouraging servicing and maintenance in the community, ensuring PAD mapping is kept up to date, review of public information available about PADs.

5. **Co-responder model.** Working with partner organisations such as Police Scotland and the Scottish Fire and Rescue Service (SFRS) to optimise early response to OHCA by using community assets.

6. **Culture of Excellence.** It is essential that we emphasise through our internal communications to all staff that OHCA is potentially survivable and that we need to focus on continuous improvement of clinical performance and patient outcomes.

Through the above actions we are optimising our process to provide highly reliable care. We are embedding practice to ensure that SAS staff are supported through the challenging experiences they face. Communication and recognition of our improvement and achievements are being highlighted through national and international forums.

Improvement - Implementation of the Out of Hospital Cardiac Arrest programme will save more lives. We continue to perform above the 45% aim with 49.3% of VF/VT patients achieving return of spontaneous circulation (ROSC) in April 2019. The statistical positive shift seen since the end of 2017 shows we are reliably improving the rate of ROSC and saving more lives.

Colleagues from across the Scottish Ambulance Service as well as those of our partner agencies, continue to work extremely hard to improve our response to, and management of, OHCA patients. With reference to our strategic aims, we are now nearing the end of year 4 of the OHCA Strategy for Scotland. To date more than 445,000 members of the public have received bystander CPR awareness and Scotland continues to work towards being recognised as centre of excellence for OHCA outcomes.

Planned activities –

- Clinical Outcomes Analyst commenced post in April and is developing the Cardiac Arrest Registry;
- Development of a faculty strategy to enable sustainability and spread of 3RU;
- Continue to develop End of Life Care work stream in partnership with MacMillan Cancer Support Scotland;
- Progress co-responding options with Scottish Fire and Rescue Service and Police Scotland;
- Complete Global Resuscitation Alliance High Performing CPR pilot by end of summer 2019;
- Develop 3RU solution for Ayrshire, Paisley, Renfrew, Inverness and Fife;

Other considerations - There are a number of inter-dependencies with the Enabling Technology programme, particularly the Defibrillator Replacement project, and the New Clinical Response Model which are supporting identification of cardiac arrest patients earlier in the call cycle and dispatching three resources to provide the best pre-hospital care.

2. **Developing a Scottish Trauma Network – Implementation of Scottish Ambulance Service/Pre-hospital minimum requirements** - Support NHS Scotland to deliver a high quality major trauma service.

Background - Trauma remains the fourth leading cause of death in western countries and the leading cause of death for people under 40. Each year in Scotland, around 4000 people are seriously injured, with around 800-1000 cases being defined as 'major trauma'. The Scottish Trauma Network has been established to meet the needs of the population of Scotland. The Service is a crucial partner of the Trauma Network and responsible for ensuring patients are taken to the most appropriate facility for their injuries and receive quicker access to expert specialist care and intervention.

Aim - Improve triage and response to major trauma patients, thereby saving more lives and improving outcomes.

Status - We have undertaken a number of projects funded through the Scottish Trauma Network. These include the implementation of the Trauma Desk, piloting the use of Advanced Practitioners working closely with Major Trauma Centres and implementation of a Major Trauma Triage Tool for use by ambulance crews to support decision making on where a patient should go depending on the severity of their injuries.

Improvement

- The trauma desk in the Ambulance Control Centre is fully operational and has improved the identification of major trauma patients and pre-hospital critical care team tasking (data published, Sinclair et al, Injury, 2018).
- Enhanced trauma equipment has been rolled out to all front line crews.
- We have provided all our operational staff with ATMIST aide memoire cards to record information and support standardisation of the format in which clinical reports are passed to the Trauma desk and hospitals within the trauma network.
- The Major Trauma Triage Tool is embedded within the ePR and being used to support the North and East of Scotland Trauma Networks which went live in October and November 2018 respectively.
- We have successfully recruited 6 new Advanced Practitioners in Critical Care to the South East Trauma Region, who started in post November 2018, with the intention of further improving outcomes for patients requiring critical care.
- SCOTSTAR West operational hours increased from 07.30-18.00 to 07.00-23.00 from August 2018.
- Development of a SCOTSTAR North Hub which went live on 23 April 2019 to provide an enhanced response to trauma patients in the North of Scotland, as well as increasing capacity to manage emergency medical retrievals across Scotland.

Planned activities -

- Electronic Patient Report Form (ePRF) version of Paediatric Trauma Triage Tool to be incorporated on to 2019 software update.
- Modelling the impact of the Major Trauma Triage Tool on operations.
- Planning for new intake of Advanced Practitioners in pre-hospital rural care for the North Trauma region.

Other considerations - We are working closely with the four trauma regions and national co-ordinating team to ensure we provide high quality pre-hospital care for trauma patients. This can be challenging to provide a consistent service approach that meets the needs of all regions.

3. New Clinical Response Model - Invest in technology and advanced clinical skills to deliver the change.

Background - Following a review of nearly 500,000 patient records, a New Clinical Response Model (NCRM) pilot programme was introduced in November 2016. The model focuses on improving patient outcomes, rather than simply measuring the time it takes to respond. Resources are now allocated on confirmation of the severity of the incident, rather than the location of the incident. The model allows us to respond faster to more patients with time-critical, immediately life-threatening conditions, such as cardiac arrest. It also supports our call handlers to better understand our patients' health needs in less urgent cases, so that our dispatchers can more effectively send the right resource first time for patients.

Aim –

- More accurately identify patients with immediately life threatening symptoms to ensure the most rapid dispatch of resource, resulting in more lives saved.
- Safely and more effectively identify and send the right resource first time for patients, for example dispatching a conveying resource first time to chest pain and stroke patients, resulting in better overall clinical outcomes.

Status - Phase 1 and 2 of the project are complete. 'dispatch on disposition' was introduced in October 2017, and subsequently two Pre-Entry Questions were introduced to identify critically ill patients as early as possible. The project is now in phase 3 and 'key phrases' was successfully implemented in April 2018 to further improve identification of critically ill patients earlier in the call cycle. Our evaluation report, alongside the University of Stirling report, was published in February 2019.

Development of an improved Healthcare Professional call process that better matches the response to the clinical need of the patient is underway with the aim to implement the revised process to respond to HCP emergencies by August 2019.

Improvement - We have more accurately identified patients with immediately life threatening symptoms, with a number of patient groups being re-triaged to the highest priority purple response category based on the high probability that resuscitation will be required. We have also improved identification of critically ill or injured patients as early as possible in the call cycle in order to dispatch a resource as quickly as possible by introduction of two pre-entry questions and a list of 'key phrases'.

The new clinical response model supports the dispatch of multiple responses to patients in the highest priority purple response category; the closest resource will be dispatched as well as ensuring the response includes a double crewed emergency ambulance to ensure an effective resuscitation team ('triple response') and if required the ability to transport to hospital. Over the pilot period we have seen an

almost 100% increase in patients receiving a multi-resource/clinician response in our highest priority response category, providing a greater chance of survival.

The response model focuses on improving patient outcomes rather than simply measuring the time it takes to respond. We have demonstrated that response times have been maintained to our most acutely unwell patients who require a time critical response. However, for the majority of patients requiring an emergency response the most important factor in effective care is the ability to target clinical skills to provide treatment and/or refer the patient to the most appropriate care for further assessment and treatment – providing the right response first time. While there has been a slight increase in response times to patients that are less acutely unwell, there has been no increase in clinical deterioration of these patients and the outcomes for these patients have remained stable.

Over the course of the pilot we have consistently identified patients within our amber response category who have a low identified need for resuscitation but a defined and identified need for specific acute pathway care, for example ST Elevation Myocardial Infarction (STEMI) and hyper acute strokes. These patients still require an emergency response and are likely to be transported to the Emergency Department, therefore a response with an emergency ambulance that can transport the patient to hospital is crucial. Over the first year of the NCRM pilot this was achieved for more than 90% of our patients, providing the right response first time.

Planned activities:-

- New ProQA modules have been developed by the academy meeting our requirements in order that we can improve the Healthcare Professional (HCP) call process so patients receive a response based on their clinical need. Currently calls from Healthcare Professionals are unscripted and taken by non-clinical call handlers. We have developed a systems based protocol for call handlers and a consistent approach for Healthcare Professionals to arrange the most appropriate level of response. Implementation will take place over the first half of 2019, with ongoing engagement and communication with HCPs.
- Continue to monitor the data from the Specialist Paramedic tasking test of change (further Specialist dispatch prompts were embedded on 16 April 2019, following earlier phases over 2018, and a new dispatch process through the alternative response desk went live on 19 November 2018) and refine the process.

Other considerations – NCRM underpins much of our service transformation work. To ensure further development of the model it is essential we have alternative pathways available that we can refer for the most appropriate treatment and advice. This includes availability of Paramedics in urgent and primary care that can provide more care at home.

4. **Hear and Treat** - Enhance our telephone triage and ability to See and Treat more patients at home through the provision of senior clinical decision support.

Background - The Service's strategy aims to enhance the number of patients that can be safely and appropriately dealt with by alternative treatment pathways than a traditional ambulance response.

Hear and Treat is defined by the Service as: The number and proportion of emergency incidents that have been resolved by providing advice over the phone, where no physical response arrives at scene.

Aim - To redesign the Service's Ambulance Control Centres Clinical Advisor Hear and Treat outcomes to improve patient experience through effective clinical triage with the view to discharging patients to an alternative care pathway or self-care advice.

Status – The Clinical Hub has been strengthened with additional Clinical Advisors – from November 2018 there were 29.5 wte Clinical Advisors against a budget of 30 wte. Following previous tests over winter 2017/18, it was agreed with NHS 24 to further increase the number of calls that are transferred as part of business as usual in order that patients receive the most appropriate care. This change happened on 11 December 2018 and initial data shows a positive sustained increase in Hear and Treat referral. A joint NHS 24/SAS strategic group has been established to take forward a number of joint activities aiming to improve the continuity of care provided to patients by phone, whether they call 111 or 999.

Improvement - An increase in calls transferred to NHS 24 results in patients with low acuity conditions receiving access to the service they require in a more timely manner, resulting in better clinical outcomes and patient experience. System changes which allow Clinical Advisors to refer to Paramedics in urgent and primary care will also provide better clinical outcomes and patient experience.

Planned activities:-

- Continue to monitor the impact of transferring an increased number of triaged eligible 999 calls to NHS 24 which will support patients to access the service they need in a timely manner. Review the changes jointly across both NHS24 and SAS.
- Further development of the joint NHS 24/SAS project group.
- Implementation of the Clinical Advisor roster review and 12 month training/CPD programme.
- Development of the Clinical Hub role in mental health response.
- Review Hear and Treat ability within the yellow response category.

Other considerations - We already work closely with NHS 24 and this will increase over 2018/19 as we seek to create a seamless experience for patients whether they dial 111 or 999, and provide access to the service they need in a timely manner.

5. **SAS clinicians in Urgent and Primary Care** – Develop our education model to provide more comprehensive care at point of contact, and enhance our ability to See and Treat more patients at home through the provision of senior clinical decision support.

Background - Towards 2020: Taking Care to the Patient clearly sets out our aims to transform our clinical model to ensure the right resource gets to the right patient at the right time. This has resulted in the development of our out of hospital clinical service where our clinicians are providing more comprehensive care at home, and supporting access to alternative care pathways that are integrated with communities and the wider health and social care service.

We have developed new roles of Specialist Paramedics and Advanced Practitioners in urgent and primary care with an advanced scope of practice to be able to treat more people at home or in a homely setting.

Aim - Our aim by December 2020 is that our clinicians in urgent and primary care are able to work as a key component of integrated multidisciplinary teams within a rotational model across health and care settings as autonomous practitioners and support care in a home or homely setting.

Status - We have approximately 110 Specialist Paramedics in urgent and emergency care. Over a third of them work on rotation in primary care multidisciplinary teams within out of hours services and GP practices across the country. A further cohort of Specialist Paramedics commenced training at Glasgow Caledonian University in January 2019. The Advanced Practitioner in Urgent and Primary Care cohort commenced the Non Medical Prescribing training module in February 2019 and are the first cohort of SAS clinicians to do so.

Improvement - As well as effectively managing the increasing urgent demand from 999 calls, SAS clinicians in urgent and primary care can play an important role in the Primary Care multi-disciplinary team. The pilot underway in Inverclyde has indicated 230,000 hours of GP time could be saved if the model was adopted nationally, 65% of home visits are suitable for Specialist Paramedics and Advanced Practitioners. This represents improved clinical outcomes and patient experience, as well as a potential financial benefit of up to around £56 million per year.

Planned activities:-

- Continue to improve dispatch of Specialist Paramedics to patients that are likely to be able to be safely treated at home or in the community.
- Measurement of the joint test of change with NHS 24 in primary care in Musselburgh which went live in January 2019.
- Further guidelines governance will be developed and agreed for SAS clinicians in Urgent and Primary Care.

Other considerations – SAS clinicians in urgent and primary care are crucial to achieve further development through the New Clinical Response Model, so that patients are provided with the right response and are treated at home where safe and appropriate to do so.

6. **Scheduled Care Service** - We continue to develop our scheduled care service in partnership, supporting outpatient services and effective discharge and transfer to improve patient flow, and deliver a better experience for patients.

Background - Transformation in health and social care delivery across Scotland aims to reform Scheduled Care by supporting patients to attend the most appropriate centre of care or return home from care centres. The Service plays a fundamental role to achieving improved patient flow and experience. During 2018/19, a wide range of tests of change have provided clear direction in how we respond to requests on the day of travel for urgent admissions to acute hospital sites and urgent transfers between acute hospital sites. Some patients may require a quick response to get to definitive care without necessarily requiring any clinical intervention en route. Therefore, a proportion of these requests could safely be undertaken by the Scheduled Care Service.

Aim - Provide an agile and responsive scheduled care service that makes best use of resources and provides improved patient care and experience.

Status - Work has been carried out to review the use of PTS and Low Acuity resources to handle same day requests for admission. A short life Focus Group, led by a Clinical Governance Manager, has reviewed incident reports and the processes for identifying patient bookings as suitable for PTS and allocation of calls by ACC. A number of recommendations have been made and these are being taken forward through the work plan of the Scheduled Care Development group.

Development of the C3 to Cleric gateway is supporting the electronic transfer of information between A&E and PTS control. Refinement of the business and technical processes is continuing. A test of change took place in December 2018 in the West region to transfer appropriate urgent admissions to PTS which demonstrated the potential for PTS to accommodate these admissions, thereby increasing utilisation, supporting A&E crews to free capacity to help reduce lengthy delays on non-ILT emergency calls, improve compliance with rest breaks and reduce the number of shift over-runs, thus improving both staff and patient experience.

Initial data analysis from the first 10 weeks of these tests demonstrates a reduction in emergency IHTs, with an increase in safe and appropriate transfers by PTS and Flow Centre vehicles. The data is currently being further evaluated to understand what intervention has made the biggest contribution to inform decisions about future developments. This is also being considered in the context of implementing a refined emergency HCP triage process (card 45) within the ACCs for all HCP/IHT requests nationally later this summer.

Improvement - An improved Scheduled Care service will provide better patient flow across acute hospital sites, support reduced hospital bed days and provide an improved patient experience.

Planned activities:-

- Further testing of PTS 24 hour cover in Lothian.
- Test of change to be continued in West ACC to improve utilisation of PTS resources for same day 4 hour urgent requests, and planning to test in North ACC.

- Continue to identify the high number of patients that do not require the assistance of A&E resources.
- Progress the work plan to take forward the recommendations of the PTS/Low Acuity review through the Scheduled Care Advisory Group and the Urgent Improvement Group.

7. Clinical Data Set Development

Background - All UK ambulance services have traditional performance measures predominantly based on a time based response. This approach has limitations as it does not reflect the clinical abilities of the modern ambulance clinician workforce or provide a framework for the measurement of best clinical practice across the entire patient pathway. There is now a need and opportunity to re-design this measurement framework and shift the culture from historic time targets to optimal patient care.

Aim - To re-design how the Service uses clinical and operational data to allow for the measurement of clinical effectiveness across the entire patient pathway of different clinical acuities.

Status

- Clinical Data Group formed.
- Development of clinical data sets aligned to key areas of practice and strategy – in final testing.
- Electronic Patient Report completion quality framework in final testing.

Improvement – this will allow us to understand the quality of care we provide to patients, alongside the time it takes us to respond. It will also support feedback to frontline staff on the care they provided and any areas where improvements could be made.

Planned Activities - Development of a national clinical effectiveness implementation plan. A key element of measurement of clinical practice is to have the ability to feedback areas of success and areas of improvement. At present there is an opportunity to develop the Service's systems so this could be delivered, identifying resource and structures to take ownership of this information.

Section 3 Enabling Technology

1. Ambulance Telehealth Programme

Aim – The aim of the Ambulance Telehealth Programme is to replace and enhance the cab-based technology in the unscheduled care (emergency) ambulance fleet. The programme is being delivered over two overlapping phases and will be complete during Q3 2019.

Status - **Ambulance Telehealth Phase 1 (Hardware Replacement) –** Completed – New tablets, communications hubs and printers were installed throughout the unscheduled care ambulance fleet during 2016 (approx. 525 vehicles).

Ambulance Telehealth Phase 2 (Electronic Patient Record & Supporting Software) - The roll out of the new ePR and the SAS app are complete. A review of the Back Office delivery has taken place, various technical issues are being addressed and the aim is now to trial in-vehicle access to GRS and Datix before completing the roll out during summer 2019.

The ePR major incident module development has been restarted after it was put on hold due to other priorities. Testing is ongoing and initial user feedback has been positive. Roll out is now expected to be completed during summer 2019 subject to NRRD testing approval.

Improvement - Improved ease of use, additional functionality, increased clinical data collection and data quality, ready access to additional decision support information, increased productivity, improved patient care and experience. Ease of use has been measured through surveying users before and after the new tablets and ePR were rolled out. Data collection quantity and quality is being measured through a combination of automated and manual ePR database analysis. Feedback has been received to advise there has been an increase in reporting of PVC bundles and pre-hospital stroke compliance.

Planned Activities – Complete acceptance testing of the major incident module, trial access to back office systems and then roll both out. Formally close the Programme.

Other Considerations - Ubiquitous access to mobile broadband data (as is scheduled to be delivered by the Emergency Service Network Programme) will be a key enabler for maximising the benefits derived from the Ambulance Telehealth Programme.

Benefit Realisation / Return on Investment - Delivery of the expected benefits from the Ambulance Telehealth Programme is overseen by the Enabling Technology Programme Board. Benefits include lower like for like costs, improved electronic Patient Record completion rates and data quality. A benefits realisation strategy is in place and each project has a benefits management plan is in place. Delivery of key benefits is actively progressed by the Programme Business Change Manager.

2. Emergency Service Network Programme

Aim - The Emergency Service Network (ESN) Programme aims to deliver a mobile communications capability that will, as a minimum, match Airwave in terms of functionality, availability and geographic coverage. It also aims to provide a very significantly enhanced mobile broadband capability when compared to Airwave.

Status – The UK Government ESMCP Team continue to progress their revised FBC. The latest timeline shows that full ESN adoption will take place in Scotland from 2021 with various ESN 'products' being made available before this.

There is currently no firm indication when SAS will be able to migrate off Airwave on to ESN. The high level ESMCP plan has an indicative date of transition to ESN starting in July 2021 and lasting 18 months. The ESMCP SRO previously advised the Scottish Government that his initial plan had been to seek sponsor body approval of the refreshed FBC by 31 March 2019. However, approval of the revised FBC is not now expected to take place until autumn 2019. Sponsor bodies (including the Scottish Government) have intimated that they require further assurance on costs and around various technical elements of the programme before approval can be given. Work is now being carried out by the ESMCP Team to provide the necessary assurances required by the sponsor bodies.

The Scottish Government will seek FBC 'assurance' from the Service and the other Scottish emergency services and an FBC Assurance Group has been set up to facilitate this. The very high level summary is that SG and the three Scottish emergency services (3ESS) have significant concerns about the affordability, the assumptions made in the FBC, meeting all user requirements and the robustness of the decision making to arrive at the preferred option. A Scottish Finance Sub-Group has also been established with representation from Scottish Government and 3ESS. The potential financial pressures presented by ESMCP have been acknowledged by Scottish Government but no firm funding decisions have been made.

Heads of Terms have also been agreed with the key ESN suppliers (EE and Motorola) to ensure contracts are in place to support the revised ESN timescales and the incremental approach to ESN delivery. The intention of the ESMCP Team was that these extensions would be confirmed by a formal Change Authorisation Notice (CAN) by 31st March 2019. The Heads of Terms with Motorola allow for Airwave contract extensions to December 2022, there is an option to extend by an additional 12 months if required. However, delays incurred have resulted in the finalisation of the Motorola CAN being put back to 14th May 2019 and the EE CAN until 31st July 2019.

A UK Government National Audit Office (NAO) report on ESMCP is due to be published during May 2019.

The strategic risks relating to ESMCP are increasing as senior government level scrutiny increases and timescales slip. This includes financial, commercial, operational and technical risks. From a Service perspective, these risks are being managed through the Scottish Government Strategic Group, the Service's 2020 Steering Group and the Enabling Technology Board.

The scope of the Service ESN Programme includes replacing the current Integrated Communications Control System (ICCS). Having

reviewed and rejected the option from Airwave to upgrade the current Capita ICCS to a new ESN compatible Capita ICCS, Service staff are now fully re-engaged with the UK Government Ambulance Radio Programme (ARP) team with a view to employing their 'ESN ready' Frequentis LifeX ICCS solution by December 2020.

Improvement - Reduced like for like costs (although this is now at risk), ubiquitous access to mobile broadband data to support the effective and efficient delivery of clinical services outwith the hospital environment. Improvements will be measured through 'before and after' data analysis and through the use of user surveys.

Planned Activities – Continued review of ESMCP FBC and input into the FBC and Finance assurance groups. Collaboration and liaison with Police Scotland, Scottish Fire & Rescue, the Scottish Government and the ESMCP Programme Team regarding ESN transition planning. Engagement with Motorola regarding SAS ICCS and Airwave terminal contract extensions.

Other Considerations - Delivery of the internal ESN Programme relies on the corresponding delivery of the risky and highly complex GB-wide Emergency Service Mobile Communications Programme.

3. Fleet Projects

Background - The Enabling Technology Programme currently provides governance for the Vehicle Replacement Project. The Vehicle Telematics Project is also in scope but is 'on hold' due to a lack of sponsor and uncertainty around the likelihood of benefits being realised, however Fleet Department are still investigating the business case for adopting telematics.

Aim – The Vehicle Replacement Project aims to manage the annual fleet replacement activities in line with the approved Fleet Replacement Business Case. It also aims to take advantage of technology to improve the operation and management of the Service fleet.

Status - The 2019/20 fleet replacement programme is managed within the Fleet Department and is progressing in line with agreed budgets and plans. The Telematics Project is being revisited by Fleet Services and the Best Value Programme to assess the project viability. From an Enabling Technology Programme perspective, the work is 'on hold' but will be recommenced if a viable 'business case' is established and funding is identified.

Improvement - Reduced running costs, improved reliability and vehicle availability, improved vehicle specifications, improved management information. Improvements will be measured through 'before and after' data analysis and through the use of user surveys.

Planned Activities – From an Enabling Technology perspective the main activities in relation to the fleet projects are project management support and benefits realisation. The development and implementation of staff surveys to aid benefit realisation and inform future vehicle requirements.

4. Defibrillator Replacement

Background – The current Philips MRX defibrillators are at the end of their serviceable life. A project is now underway to replace them with new Advanced Life Support (ALS) monitor/defibrillator units. The aim being to improve patient care and staff experience.

Aim – The objective of the Defibrillator Replacement Project is to commission and deploy replacement defibrillators for use by Scottish Ambulance Service clinicians. The aims being to improve patient care through innovation and clinical transformation, support the delivery of the Out-Of-Hospital Cardiac Arrest Strategy for Scotland (2015) and to deliver better care to patients wherever they may be.

Status – The implementation phase of the project is underway however the work to finalise the contract with the supplier is taking longer than anticipated. However, progress is being made, training and logistics workshops were carried out during March 2019 to inform the detailed project plan. Roll-out is currently expected to take place during late 2019 and early 2020.

Improvement – Implementation of new defibrillators will deliver various benefits including enhanced clinical care for patients and improved staff experience through full integration with the new ePR.

Planned Activities – Finalise contract award. Take delivery of initial units. Complete testing. Interface development.

5. PTS Mobile Data Procurement

Background - The PTS Mobile Data Procurement Project is managed under the Enabling Technology Programme. The project is being initiated as the current solution was commissioned in 2012, it is nearing the end of its serviceable life and the contract is due for renewal.

Aim – The PTS Mobile Data Procurement Project aims to develop a business case, secure funding and then procure a 'fit for purpose' PTS Mobile Data solution to replace the current one.

Status - The PTS Mobile Data Procurement Project is at the first stage of a three stage procurement process. The Initial Agreement (IA) has been developed and has gone through the internal Service approval process. It will now be presented to the Scottish Government Capital Investment Group for approval on 15th May 2019. The plan is to have the OBC then the FBC developed and approved over the next 12 months.

Improvement – The solution procured will offer modern technology, improved hardware reliability, enhanced data access and a new compliant contract that will offer best value. It will enable the Scheduled Care Service to support patient needs and adapt to future service change. Benefits and improvements will be measured through 'before and after' data analysis and through the use of user surveys.

Planned Activities – From an Enabling Technology perspective the main activities in relation to the PTS Mobile Data Procurement will involve; the development of a suitable Business Case for approval, research commercial offerings, benchmark against other Ambulance Services, stakeholder engagement, development of a specification and completion of a procurement process.

6. Enabling Technology – Other Projects

The scope of the Enabling Technology Programme currently extends beyond the programmes and projects already covered in this section. It also includes a number of projects related to the delivery of the Service eHealth Strategy. For example, upgrades for the ACC network infrastructure and the delivery of the BHF PAD database are ongoing. Further details regarding these additional projects and initiatives are available via the Enabling Technology Programme Team as required.

Other Considerations – There are some interdependencies between the various Enabling Technology Projects and other Service Programmes & Projects e.g. Clinical Service Transformation, Workforce Development etc. These interdependencies are managed through integrated planning meetings.

Section 4 Workforce Development

1. Employee Resourcing

Aim – To recruit and retain staff to ensure the Service has the necessary skills to deliver its 2020 workforce profile and improve staff experience.

Status – Implementation - delivering 2019-21 plans based on continuing strategic direction of travel.

Improvement – Our extensive recruitment effort has kept us on track with the workforce plan targets as set out in the Service's 2020 workforce plan. This effort needs to be sustained with pending changes to our education model which will require increased volume of activity to support transitional arrangements. Technician recruitment has continued to be very successful, with the number of applicants per vacancy significantly increasing.

In total we have 200 Paramedic training places available in 2019/20. 35 of these places were filled by direct recruit trainee Paramedics who entered training. The remaining 165 will be filled from the 2019/20 applications from Technicians. An additional 50 Undergraduates will commence in September 2019. We are also planning recruitment for Advanced Practitioner roles which will increase our overall Paramedic numbers.

Planned Activities Include – Recruitment to the 2019/20 training groups for Paramedics has to date allowed 93 training places to be filled. Successful applicants will be allocated to one of the four training groups running between July and November. The February recruitment exercise is now at the OSCE assessment phase. In order to maximise our training numbers, the recruitment team are presently liaising with regional workforce leads to prioritise the July and August intakes. The allocation of places for Technician and ACA roles continues in line with Regional workforce plan requirements. The identification of Specialist and Advanced Paramedic intake numbers will be completed in the next quarter to allow recruitment to commence.

To support ongoing recruitment towards 2020, several process improvements have been delivered. The aim to continually improve the candidate and recruiting manager's experience through the recruitment process will continue to be a key aim throughout 2019.

The root and branch review of our recruitment processes and procedures in 2019 is continuing building on the work we have done with our candidate management system, which will result in a refreshed resourcing activity being developed, covering the employee life cycle. This work now incorporates changes arising from the implementation of the new NHS Scotland regional recruitment model and the deployment of the national Recruitment system (Job Train), which we are scheduled to deploy by December 2019.

As reported in detail to the Board in March, our present work to meet our desired increase in Paramedic numbers, is being aligned to longer term changes to our education model (see other considerations below). The approach will evolve to deliver our required numbers across the next 3-5 years as we transition into new arrangements. Work will include the assessment of direct recruitment opportunities, along with the expansion of the undergraduate degree route at the core of our new model. This will require adjustment of lead in times to deliver Paramedic numbers. Our present effort is focusing on maximising Technician to qualified Paramedic training and the increase of recent Paramedic applications means a healthier pipeline to start the planning of the next intakes.

Other Considerations – The mixed resourcing model developments referenced above will support continuing target delivery over the next three years as we prepare for changes to the Educational Model to align with the introduction of honours degree level HCPC registration requirements in 2021. This will build on the external pipeline which was expanded in 2017 with commencement of the first full time degree programme in Scotland (first graduates in 2020).

Benefit Realisation/Return on Investment – Ensuring the Service has the right mix of skill and resources will enable it to effectively contribute in an integrated health and social care system.

2. Employee Development

The Scope of Practice framework has been developed which defines how all of the Service's frontline roles will operate to support our 2020 Strategy. This framework continues to evolve to align with transformational organisational change. From an initial focus on the development and deployment of the Specialist Paramedic role in Urgent & Emergency Care, 2018/19 delivery has included reviewing needs across all areas, incorporating the development of advanced Paramedic practice, reflecting re-banding implications and incorporating major trauma, national operations (Ambulance Control Centres, National Risk & Resilience Department, SCOTSTAR and Air Ambulance) and support/corporate functions.

Aim - To identify the employee development requirements arising from workforce modelling which will underpin the delivery of our Workforce Plan and ensure we have developed a workforce capable of delivering our strategic aims.

Status – Planning (review of work to date and response to workforce re-modelling activity) and implementation of changes arising from development needs assessment.

Improvement – An organisational learning needs analysis, overseen by the Capable Workforce Group, was undertaken at the end of 2018. A variety of learning needs from across directorates were raised and the Group committed to supporting a number of these financially in order for development of staff to take place, as reported to the Workforce Development Programme Board. Going forward our processes for undertaking organisational learning needs will be improved to align more directly with macro strategic development and embedded within directorates' annual activities. Review of present arrangements as part of Executive development work has suggested a need to revamp the learning agenda and put this work front and centre within the staff experience agenda.

Planned Activities Include – Implementing a Learning Management system as the single source for all learning administration and reporting for the Service.

Learning management system user participation will be phased over the period April 2019 – April 2020, starting with regional and directorate Learning & Development Administrators and moving through Self Service for managers to Self Service for staff. From April 2020 all managers and staff will be using the learning management system to request and manage learning events and evaluations. Initial training of administrators has been completed and further training and learning catalogue development will be the focus over the next quarter.

Delivery of the 2019/20 leadership and management development plan that encompasses activities at four levels of leadership and management aligned to the NHSScotland Leadership and Management framework is another key element of the learning agenda. Agreement to develop and implement a Leadership in Practice programme for our operational leaders will inform planning over the next quarter and delivery of the first phase upon which we aim to have an annual CPD activity programme.

This work will build some of the foundational elements to support the embedding the Service's processes for talent management and succession planning that are cohesive with the approach of Project Lift by providing support, resources and guidance for line managers to undertake career conversations with those identified as demonstrating potential through the Service's processes and to direct, where appropriate, staff to engage with Project Lift.

Other Considerations – The Clinical Service Transformation (CST) programme leads on developing advanced practice within the Service, and close working arrangements between Clinical Services Transformation and Workforce Development are required and in place to manage interdependencies.

Benefit Realisation/Return on Investment – To support the delivery of the Service's See and Treat and Hear and Treat targets, with greater integration of health and social care, managing patient care at home, supporting anticipatory care planning for patients with long term conditions, prescribing and referring directly to clinical services. This work will also ensure that support function needs are incorporated into our development planning, ensuring that priority development needs are identified and supported.