

Summary of Responses to the Recommendations of the Meningococcal Working Group

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Foreword

It was a privilege to Chair the Meningococcal Working Group in 2018. This Group consisted of experts in the field as well as representatives from the relevant Royal Colleges, Arms' Length Bodies, meningitis charities, and most importantly, some of the families whose lives have been profoundly affected by their loved ones having suffered from meningococcal disease.

The Working Group report was published on GOV.UK in July 2018 and contained a number of important recommendations aimed at improving awareness, early diagnosis and treatment of sepsis and meningococcal disease. I wish to thank the organisations who have since responded to those recommendations. This document contains a summary of their responses.

The recommendations of the Working Group report are already having an impact. Since they were published, meningitis charities, Public Health England and NHS England have been working together to raise awareness of meningitis and sepsis, to improve the communications around cases and to ensure parents know how vaccination can help to prevent disease. I would like to see this vital close collaboration and knowledge sharing between organisations continue.

I wish to reiterate my thanks to the families whose strength in coming forward has raised the profile of meningococcal disease.

Professor Jonathan Van Tam

Deputy Chief Medical Officer

Introduction

In July 2018, the Meningococcal Working Group published its report 'Raising awareness of the signs and symptoms and ensuring early diagnosis and treatment of meningococcal disease: Report to the Secretary of State for Health & Social Care'. This report is available at:

www.gov.uk/government/uploads/system/uploads/attachment_data/file/721475/Meningoco ccal_Working_Group_Report.pdf

This report was produced in response to a request from the previous Secretary of State for Health and Social Care to assess what more needs to be done to raise awareness of the signs and symptoms of meningococcal disease among parents, young people and healthcare professionals with a view to improves assurance of early diagnosis and treatment.

The Working Group made a number of recommendations, and key organisations were asked to provide a response on how they will take forward the recommendations outlined in the report. Some of the organisations who were asked to respond had representatives on the Working Group.

The aim of this document is to be a repository of the latest guidance and to hold organisations to account in their response to the recommendations.

This report summarises the responses received from the following organisations;

British Red Cross Care Quality Commission Health Education England Meningitis Now Meningitis Research Foundation National Ambulance Service Medical Directors Group NHS England and Cross-System Sepsis Board (joint response) NHS Improvement Public Health England Royal College of Emergency Medicine Royal College of General Practitioners Royal College of Nursing Royal College of Paediatric and Child Health Royal College of Physicians St. John Ambulance

We were encouraged that all the main organisations welcomed the opportunity to respond and are committed to ensuring that improvements are made in raising awareness of the sign and symptoms, and treatment of meningococcal disease. There was broad agreement about the need to work collaboratively to improve outcomes for patients; and the responses indicate examples of where the meningitis charities have been invited to work with Public Health England and the Cross-System Sepsis Board.

Respondents wished to offer their sincere condolences to the families of Layla-Rose Ermenekli, Izzy Gentry and George Zographou. Their bravery in raising awareness we hope has led to transformative changes in the fight against meningitis.

Recommendation 1 – Cross-System Sepsis Board

Approaches to the recognition, early diagnosis and treatment of meningococcal disease should be included under the umbrella of the Cross-System Sepsis Board. The Board should consider how to include appropriate input from the meningitis charities and incorporate this into their on-going work programme.

Response from NHSE England the Cross-System Sepsis Board

Representatives from Public Health England and Meningitis Research Foundation were invited to attend the July 2018 meeting of the Cross-System Sepsis Board to discuss the key findings of the report. The shared approach of early recognition, treatment and management of acute deterioration across sepsis and meningitis was highlighted and a number of actions were agreed.

Several members agreed to cross reference meningitis resources within their educational material. It was also agreed that the NHS website would be updated to ensure appropriate links between the sepsis and meningitis content where relevant.

Wording will also be incorporated within existing sepsis guidelines, that the clinician considers other infections such as meningitis, if it is judged the patient does not have sepsis.

To enable continued collaboration, the meningitis charities have been invited to attend future meetings of the Cross-System Sepsis Board, particularly when they have relevant items to discuss around the wider sepsis and acute deterioration workstreams.

The meningitis charities have also been invited to have regular meetings with colleagues in the NHS England Clinical Policy Unit, to support any planned communication activities or campaigns. This relationship has already proved beneficial, with NHS England providing media support for the launch of the Meningitis Research Foundation's safety-netting hub during Meningitis Awareness week in September 2018.

Recommendation 2 - CQUIN

The Sepsis CQUIN should continue for the foreseeable future. In addressing screening for sepsis and timely initiation of treatment, the CQUIN will impact on the recognition and early diagnosis of meningococcal disease, potentially at a stage when the disease is not readily distinguishable from other forms of sepsis as meningococcal disease.

Response from NHS England and the Cross-System Sepsis Board

NHS England is responsible for setting targets under the CQUIN scheme. The national CQUIN scheme for sepsis¹ has been in place since 2015 and has proved to be very successful. Latest data from quarter 2 of 2018/19 shows sepsis screening rates for patients was 87.9% in Emergency Departments (ED) and 86.9% for inpatients; rapid administration of antibiotics was 79.2% for ED and 81.8% for inpatients.

In 2019/20 the Sepsis CQUIN will be retired. However, given its success, a requirement for including this within the NHS Standard Contract is currently being consulted on.

Recommendation 3 - Think Sepsis

To identify, or rule out, sepsis there needs to be:

- A broader culture of routinely using structured observations and recording of physiological measurements such as respiratory rates, perfusion, level of consciousness in all tiers of medical practice, to guide recognition of possible sepsis;

- Implementation of the NICE fever guideline in children under five years of age, with evidence available inpatient notes to demonstrate to CQC during inspections that this guideline was being systematically implemented by healthcare professionals in primary and secondary care.

Response from the National Ambulance Service Medical Directors Group (NASMeD)

The response from the NASMeD indicated that they have incorporated the National Early Warning Score (NEWS2)² into their guidelines, with all ambulance services using NEWS2 or moving towards using it in line with the NHS England safety alert. The response highlighted that there are no English ambulance services that use the Paediatric Early Warning Score (PEWS), but all have some form of tool to assist the face-to-face recognition of sepsis in children.

Response from the Royal College of General Practitioners (RCGP)

The RCGP supports improving the documentation of vital signs however there are some practical aspects that need to be overcome. Firstly, the additional time taken in a consultation to document the vital signs and secondly that the provision of pulse oximetry in children and especially neonates is poor. This is primarily due to access to verifiably accurate and affordable technology.

There are a number of clinical scoring systems that can be used to assist in the assessment of children with potentially serious bacterial infections: Yale Observation Score³, NICE Traffic Lights, The 'SICK' score etc. Even in an Emergency Department setting, where many patients will have been pre-triaged either by the ambulance service or general practice, the sensitivity of the RCPCH "Serious Bacterial Infection" criteria is poor with many patients with sepsis being missed⁴.

This highlights the inherent danger of clinical risk scores when utilised in isolation. No score is perfect, and reliance on a score to make a clinical decision may not only result in over-admission but may also result in under diagnosis or missed diagnoses with serious consequences.

There is danger that the traffic lights system is being taken as a failsafe decision-making tool when it is really only intended as a decision support aid and especially in an environment such as general practice, where the prevalence of sepsis is low. In addition, the RCGP are not aware of any high-quality evidence that shows that using scoring such as NEWS2 scores is safe or reliable in general practice.

It is important to note that whilst GP computer systems utilise algorithms that highlight patients with potential sepsis on the basis of vital signs, a consistent message from RCGP members is that they are in many cases correctly ignoring these warnings due to their inaccuracy when compared with the patient in front of them. Further development of these algorithms is therefore essential, if they are to be used to best effect.

Some members have also raised concerns regarding computer "warning flag fatigue" in that they "pop up" so frequently that they are ignored. There is therefore a consequential risk that when they do need to take heed of the warning, they are ignored. An issue that has not been addressed is the different risk profile of patients in general practice when compared to those seen in an acute setting.

Overall, the RCGP consider that a holistic medical assessment and care which combines clinical judgement in conjunction with the measurement of vital signs is required. This is especially to avoid the unintended consequence of the increased admissions of the less severely ill.

There are a number of serious conditions which can present as similar to those of meningococcal disease or sepsis, that need to be better evidenced to improve care. There are two steps for GPs: this includes to always see a sick child face to face, and secondly to recognise the role of clinical judgement.

The RCGP make a strong recommendation for high quality research prior to the widespread implementation of formal scoring systems in a general practice setting, so that they have information and knowledge regarding their sensitivity and specificity when compared with patients in an acute or hospital environment, where scoring may be more appropriate.

Response from the Royal College of Nursing (RCN)

The response from the RCN highlights that the focus with sepsis needs to be on recognising and managing deteriorating patients, recognition of sepsis in general and how to ensure care is escalated in a timely way.

The RCN is represented on the Cross-System Sepsis Board and have contributed to the development of the NHS England Sepsis Action Plan⁵. Members of the RCN also contributed to the NEWS2 Working Group and are supportive of the use of the National Early Warning Score NEWS2, as this will help to standardise the way healthcare professionals recognise, treat and monitor deteriorating patients.

The RCN also contributes to the work of NICE, including NICE Guidelines⁶, Quality Standards⁷ and the Diagnostic Assessment Group.

The response from the RCN highlighted that Health Care Assistants (HCAs) and Health Care Support Workers (HCSW) are often the first healthcare practitioners to attend to a deteriorating patient and perform observations. They outlined the importance in including HCAs and HCSWs in training and educational sessions. The RCN have developed, First Steps online resources⁸, which includes sepsis recognition and escalation advice guidance.

A number of resources have been developed to support members working with children and young people to help raise awareness of the potential issues and challenges of sepsis in this age group. These include:

- Standards for Assessing, Measuring and Monitoring Vital Signs in Infants, Children and Young People⁹, published in 2017. These standards are for the monitoring and measurement of vital signs and clinical assessment as core essential skills. They are relevant for all health care practitioners working with infants, children and young people in acute care settings, GP surgeries, walk in clinics, telephone advice and triage services, schools and other community settings. These guidelines also discuss the importance of listening to parents and carers in relation to children's health.
- The Toolkit "Getting it Right for Children and Young People"¹⁰ provides a selfassessment tool for general practice nurses and other first contact settings providing care for children and young people.

The RCN has also published specific subject guide for "Sepsis and Children and Young People"¹¹.

The RCN is working with NHS Improvement to develop Paediatric Early Warning System (PEWS). This includes a PEWS survey to organisations providing services to children in

emergency departments, assessment or in-patient settings. The work aims to establish current use of PEWS and rapid response teams for the early identification of potentially critically unwell children. There are four work-streams looking at: the appropriate scoring system to use and where this should be implemented; measuring outcomes, enabling education and training; data and digital; and implementation levers. There is an advisory group overseeing the governance process of the work-streams which includes representation from the RCN.

Response from the Royal College of Physicians (RCP)

The response from the Royal College of Physicians outlined their support for NEWS2. This has been highlighted in their curricula and educational events at both national and regional level.

Response from the Royal College of Paediatric and Child Health (RCPCH)

The response from the Royal College of Paediatric and Child Health sets out that it is a challenge to identify sepsis in children because the signs and symptoms in the early stages are very similar to common childhood illnesses. The RCPCH is committed to increasing skills in recognising and treating sepsis and is keen to work further with all organisations committed to reducing the mortality and morbidity from sepsis in children and young people.

In 2015, RCPCH published two sets of acute service standards to improve the assessment and timely review of acutely sick children by a senior clinician¹² and by working more effectively in teams across primary and secondary care¹³. The standards were audited¹⁴ across the UK in 2017. As a result of the audit findings, RCPCH called for an expansion of the paediatric consultant workforce to help units increase consultant presence at peak times, usually between 8am to 10pm, to improve the standard of hospital care. To do this, RCPCH has recommended that in the UK, 465 full time equivalent (FTE) paediatric trainees are recruited at ST1 (trainees in their first year) level every year for the next five years which will help achieve the consultant expansion required. The RCPCH has recommended an increase in total of 752 FTE paediatric consultants to meet standards across the UK with 520-554 specifically in England.

The RCPCH and NHS Improvement are co-developing a national Paediatric Early Warning System (PEWS).

PEWS tracks physiological and behavioural observations and have been encouraged and supported by national organisations as a tool to assist in the early detection and deterioration. In some organisations, there has been a significant amount of work to

design, construct, pilot, implement and evaluate early warning systems, ensuring the local structures and coordination of care are embedded in the document.

Having one PEWS system will enable the adoption of a common language across the range of health services in primary, secondary and tertiary care locations and settings to recognise, signpost, provide the right care and provide effective safety netting systems. This work will be complemented by other strands to improve the quality of measurement of illness, to maximise the use of digital technology and identify possible systems, levers and incentives to implement a PEWS system across primary, secondary and tertiary care. This PEWS work-stream intends to explore how we can include parental and professional concern as important factors in the early warning system and will have links to the Cross-System Sepsis Board.

RCPCH and NHS Improvement developed a 'Safe system framework'¹⁵ for children at risk of deterioration with clinicians and experts. It provides a 'state of the nation view' that drives action and local services for infants, children and young people.

The framework comprises six domains, including: patient safety culture, partnerships with patients and families, recognising deterioration, responding to deterioration, open and consistent learning and education and training.

The framework includes a wide range of evidence and resources for both paediatricians and child health professionals to support them to put in place safety systems to identify and diagnose children at risk of deterioration, including those who have sepsis.

The RCPCH website also hosts the S.A.F.E¹⁶ resource (Situational Awareness For Everyone). This resource supports child health professionals to use situation awareness principles to help improve communication and build a safety-based culture. This resource provides many tools child health professionals might consider using to:

- reduce avoidable error and harm to acutely sick children.
- improve communication between all healthcare professionals involved in a child's care - as well as families - to ensure treatment is consistent and of the same high standard regardless of postcode or class.
- help close the disparity in health outcomes for children in UK vs other countries, as well as between children's care and adult care.
- involve parents, children and young people to be better involved in their children's/own care.

The resource has been organised into six main themes, which reflect how S.A.F.E has been implemented elsewhere in the UK.

Paediatric Care Online (PCO UK)¹⁷ is an online decision support system designed for healthcare professionals who see children at the point of care. This innovative tool provides immediate access to clinically-assured information to inform decisions at point of care, together with a repository of supporting reference material and patient information. PCO UK has a number of 'key practice points' including one on Meningitis (Bacterial) and Meningococcal Septicaemia¹⁸. The key practice point on neonatal sepsis was published in autumn 2018.

PCO UK also hosts the 'Green Book'¹⁹ which details the vaccination schedule for infants, children and young people. This also includes information about vaccinations for meningococcal disease.

The RCPCH endorses all the NICE guidelines and signposts to various resources in PCO-UK²⁰ ²¹ ²² ²³.

Feedback from RCPCH members is that the current NICE guidance in spotting the sick child is potentially non-specific and insensitive. In some areas local tools have been developed to mitigate this. This has been fed back to NICE. NICE is currently updating its clinical guideline on the recognition, diagnosis and management of meningitis (bacterial) and meningococcal septicaemia, with final guidance expected to be published in February 2022. NICE's methods for developing clinical guidelines involve a thorough and transparent assessment of the available evidence and extensive engagement with stakeholders.

Also views that the CQUIN for sepsis is not paediatric focussed which has been fed back to NHS England.

Response from NHS England and the Cross-System Sepsis Board

In 2012, the Royal College of Physicians developed a National Early Warning Scoring system (NEWS2) to help standardise the process of recording, scoring and responding to changes in routinely measured physiological parameters in acutely ill patients, including those with suspected sepsis.

The Cross-System Sepsis Board is driving the implementation of NEWS2 forward. NEWS2 been endorsed by the National Quality Board, NHS England and NHS Improvement. In April 2018, a joint patient safety alert was issued to all acute and ambulance trusts mandating them to transition to NEWS2 by March 2019.

The Cross-System Sepsis Board is also involved in the early work taking place under the leadership of the Royal College of Paediatric and Child Health to develop an early warning score solution for paediatrics (PEWS).

The benefit of NEWS2 was acknowledged by the Meningococcal Working Group as a helpful meningitis-related tool for professionals.

Response from St. John Ambulance (SJA)

The St. John Ambulance consider that to identify, or rule out, sepsis there needs to be:

- A broader culture of routinely using structured observations and recording of physiological measurements. These include respiratory rates, perfusion, level of consciousness in all tiers of medical practice, to guide recognition of possible sepsis.
- Implementation of the NICE fever guideline in children under five years of age, with evidence available in-patient notes to demonstrate to CQC during inspections that this guideline was being systematically implemented by healthcare professionals in primary and secondary care. This would also contribute to the identification of sepsis.

Recommendation 4 - Safety-netting

Documentation (in addition to verbal instruction) should be given to any patient (particularly parents/carers of a child or teenager), who has been assessed because of concerns about infection and is being sent home. This information should:

- Set out what to look for in terms of deterioration or causes for concern for the child in question;

- Empower patients and carers with appropriate knowledge so they can seek further advice and assessment if concerned.

It should be recorded in the patient's notes that this information has been provided and there should be mechanisms in place to monitor and audit that this is taking place so that, for example, the CQC could consider this metric during inspections of acute trusts and primary care.

Response from the British Red Cross

Guidance was introduced in May 2018 which sets out a clear safety-netting process to assist the staff at the British Red Cross working in clinical roles in making decisions about the appropriate pathways for on-going care – safe discharge or escalation for further treatment. Part of the guidance includes the introduction of the National Early Warning Score (NEWS2) tool in line with NHS Patient Safety Agency Alert²⁴.

The safety-netting and escalation guidance, along with NEWS2 monitoring tool has now been fully introduced within the directorate increasing the safe decision-making processes surrounding appropriate on-going care pathways and discharge, providing additional tools in the recognition of unwell patients, including those suspected of suffering sepsis and meningococcal disease.

Response from St John's Ambulance (SJA)

The response from SJA highlighted that documentation (in addition to verbal instruction) should be given to any patient (particularly parents/carers of a child or teenager), who has been assessed because of concerns about infection and is being sent home. This information should:

• Set out what to look for in terms of deterioration or causes for concern for the child in question;

• Empower patients and carers with appropriate knowledge so they can seek further advice and assessment if concerned.

Response from the National Ambulance Service Medical Directors Group (NASMeD)

Whilst each ambulance service has its own local procedures for discharging and referring care of patients that may not be conveyed to hospital, the Association of Ambulance Chief Executives (AACE) will advise the development of specific documentation to be left with the patients who are suspected of having an infection.

The AACE have been involved in discussions with the Meningitis Research Foundation, who are aware of their guidelines. Following discussions, the Meningitis Research Foundation are considering how to raise awareness, considering writing an article for an ambulance magazine and exploring the possibility of developing an on-line training video resource.

Response from NHS England and the Cross-System Sepsis Board

Safety-netting is one of the themes within the 2017 Sepsis Action Plan²⁵. A number of activities have been delivered: The Royal College of Paediatrics and Child Health has updated the national template for the Red Book to include information on how to tell if your child is seriously ill, with onwards links to relevant pages on NHS Choices. Also available on NHS Choices are two films - 'Spotting Sepsis in under 5's'²⁶ and 'Caring for Children with Fever at Home'²⁷.

A further action within the Sepsis Action Plan is to work with GP software providers to update their sepsis alert algorithms. Work is taking place to define an optimum solution with the aim of this being available as an improved safety netting solution for GPs. This work will continue in the 2019-2020 action plan. Finally, as previously described, NHS England were pleased to support the launch of the Meningitis Research Foundation's safety-netting hub during Meningitis Awareness week in September.

Overall, the involvement of the Meningitis charities has been extremely helpful and NHS England look forward to working collaboratively with them to improve outcomes for patients.

Response from the Royal College of General Practitioners

Safety-Netting is a routine part of general practice and has been taught as a concept to GPs for many years. However, there is no current standard recommended written safety net handout for parents. We recommend that any guidance is:

- Evidence-based and based upon evidence of what guidance is helpful.
- Available in a range of languages

Such guidance should be readily available and consider the potential limit on time that many GPs have.

Response from the Royal College of Nursing (RCN)

The Royal College of Nursing's Children and Young People Acute Care Forum are planning a member survey regarding safety-netting. The RCN have indicated that they want to better understand how staff are empowered and able to listen to the concerns of parents and carers to inform their assessment. This work will inform further RCN resources and advice.

Recommendation 5 - Mass Gatherings

Organisations providing first aid/medical services at mass gatherings targeted at teenagers and young adults (especially those that span a number of days) should be able to demonstrate that their staff/volunteers are appropriately trained to recognise the signs and symptoms of meningococcal disease and sepsis and CQC should check this as part of the registration and inspection process.

Response from the British Red Cross

In March 2017, the Event First Aid and Ambulance Support Directorate of the British Red Cross provided updated information to all clinical staff and volunteers through their regular newsletter on clinical focus, regarding sepsis. This update included information relating to what sepsis was as a condition, recognition and management within their operational environment. This related to the clinical skill level of their personnel, the focus is primarily on recognition and urgent access to additional help (paramedic ambulance or admission to hospital).

This was reinforced in May 2018 with the introduction of new guidance on safety-netting and escalation. See recommendation 4 for more detail on this guidance.

First Aid Education

The British Red Cross, in collaboration with St John and St Andrew are co-authoring the world's leading First Aid Manual. The current volume advises on fever and meningitis, and the tripartite group are preparing for the next edition to include sepsis recognition with awareness following guidance from the Sepsis Trust. Publication is expected in 2020.

An article by the Chief Executive of the Sepsis Trust "Sepsis the Silent Killer" was included in the International Journal of First Aid Education to help raise awareness. In addition, the Chief Executive of the Sepsis Trust has been invited to the Tripartite Medical Committee in 2019 to share diagnostic tools developed by the Trust. This will help to inform the content of the next edition of the First Aid Manual.

First Aid Education at British Red Cross are also considering facilitating research into the lay-person's recognition of sepsis to see if a more user-friendly tool can be developed. This research is likely to be started in 2019 with publication by 2020.

Response from the Care Quality Commission (CQC)

CQC support the principle of staff providing first aid/medical services at mass gatherings being trained in identifying meningococcal disease. However, although ambulances services do generally fall into CQC's scope of registration, in relation to this recommendation there are exceptions that impact organisations providing first aid / medical services at mass gatherings.

The exceptions mean that providers who only provide healthcare services to events, and never transport off those premises, are not providing a regulated activity. 'First aid' is also not a regulated activity; if a service only provides first aid, with no specialist training or equipment, that will also not fall within CQC's scope of regulation. As these services fall outside CQC's scope of registration, they unable to inspect or enforce these requirements.

The exceptions are set out below:

- Treatment of Disease, Disorder or Injury (TDDI), which includes the following exemptions: The provision of treatment in a sports ground or gymnasium (including associated premises) where it is provided for the sole benefit of persons taking part in, or attending, sporting activities and events (4(3)(f)).
- The provision of treatment (not being first for the purposes of paragraph 9 of Schedule 2) under temporary arrangements to deliver health care to these taking part in, or attending, sporting or cultural events (4(3)(g)).
- Transport services, triage and medical advice provided remotely. This includes transport services provided by means of a vehicle which is designed for the primary purpose of carrying a person who requires treatment. There are two exemptions which apply, the relevant one here being:
- Transport services which are provided within the confines of the site or venue being used for an activity or event mentioned in paragraph 4(3)(f) or (g).

Where an ambulance service is within the scope of registration, CQC expects them to have regard to NICE guideline 51, Sepsis: recognition, diagnosis and early management²⁸.

Response from the National Ambulance Service Medical Directors Group (NASMeD)

Both the Advanced Medical Priority Dispatch System (AMPDS) and NHS Pathways, as the two prioritisation tools licenced for 999 use in England, have specific algorithms within them designed to enhance the early identification of patients with potential meningitis. In addition, protocols exist with all NHS111 providers to verbally flag potential sepsis cases

with 999 that have been automatically passed from NHS111 to 999 for an ambulance response.

The UK ambulance service clinical practice guidelines contain a section specifically on the recognition and management of meningococcal meningitis and septicaemia. In September 2017 the NASMeD introduced a new guideline for sepsis and this references the need to consider meningococcal disease and the early administration of benzyl penicillin. Other guidelines include febrile illness in children, which includes the traffic light system of clinical assessment in line with NICE guidance.

Response from St John Ambulance (SJA)

St John Ambulance Central Clinical Team reviewed the recommendations by the Meningococcal Working Group, and considered the current position and plans for further work:

- The SJA Clinical Procedures Manual²⁹ includes a section on meningitis with signs and symptoms and recommends: Urgent medical attention is vital as meningitis and septicaemia can develop very quickly and to call for an ambulance.
- Meningitis is a mandatory module in all SJA operational first aid courses and there is a section specifically on the disease in the First Aid manual 10th Edition (rev).

There is information on sepsis which has been distributed in the Clinical Update and there is a section on SJA intranet, SJAConnect, which covers the following items:

- What is sepsis?
- The symptoms of sepsis
- When to seek urgent healthcare advice
- Links to the 'Sepsis Manual', 'NHS Choices', 'Sepsis Trust' and number of resources such as the think sepsis symptom card, Spot it, treat it, beat it.

Further supplies of these resources have been ordered and were distributed nationally in September.

There was no specific section on sepsis in the SJA Clinical Procedures Manual. A new section on Sepsis which includes early recognition in the first aid/pre-hospital settings using vital sign monitoring and patient observation and then prompt treatment/transfer has been developed and published.

The SJA Clinical Procedures Manual already includes:

- A section on feverish illness in children under 5
- the NICE traffic-light assessment system for clinicians to use for all children presenting with fever³⁰.

The SJA manual has been reviewed and updated where necessary in line with the NICE 2017 updated version with the additional recommendations to cross-refer to the NICE guideline on Sepsis: Recognition, Diagnosis and Early Management³¹, to highlight that clinicians should not use a response to antipyretic therapy alone as a means to differentiate between serious and non-serious infection and highlight that some vaccinations have been found to induce fever in children younger than 3 months.

The case studies within the report have been uploaded onto SJAConnect, included in the August 2018 Clinical update to be used as a point of learning for volunteers and staff and will be included in future training materials.

The August 2018 TAKE5, which is an information and briefing tool was based on sepsis recognition and a Toolbox Talk on sepsis has been developed and published as part of the August Clinical update. Sepsis information cards³² have been sourced from the Sepsis Trust and have been disseminated to all volunteers and staff.

An event briefing document has been developed and is available, for use at events such as musical festivals, covering more than one day and this is referred to in the event and planning and briefing documents. This document includes a section on sepsis and meningococcal recognition.

The current Patient Reporting Form documentation when next reviewed will ensure it covers adequate information for patients and relatives. In the interim the event briefing document on meningitis and sepsis covers signs and symptoms.

Training materials are constantly reviewed and during 2018/19 particular reference will be made to ensure the following:

- Training materials for appropriate courses will include learning session on meningitis and sepsis.
- Local unit training will include meningitis and sepsis.
- The assessment and evaluation processes where appropriate will include meningitis/sepsis recognition.

Recommendation 6 – Public Health England

Public Health England should:

- Review its general leaflets and literature on vaccination (including information on signs & symptoms of meningitis & septicaemia and vaccination-related messages) in partnership with meningitis charities, test revised literature with young people and parents and include links to meningitis charity info pages;

- Review the template letters sent out following a case or cluster of meningococcal disease, to ensure information about signs & symptoms and action required is clear, testing this with the meningitis charities and a sample of families and healthcare professionals, include links to the meningitis charity website for further information and produce a checklist of standard points to consider for use by the local authors of these letters;

- Engage with meningitis charities at the earliest stage possible if there is a cluster or outbreak of meningococcal disease to facilitate sharing messages and providing advice and support to the local community.

Response from Public Health England (PHE)

All relevant Public Health England vaccination leaflets contain information developed with input from the meningitis and septicaemia charities and include links to the charity websites. PHE have confirmed that each leaflet will be reviewed and consulted on as they are regularly updated and will be field-tested when substantial changes are made. The "Know the signs and symptoms"³³ MenACWY leaflet has already been shared with one of the members of the three affected families and suggested changes to the information (on signs and symptoms, and on the different vaccines available) have been taken on board. A MenACWY banner has been developed for use on social media, school, college and university display systems.

The standard template letters that accompany the PHE guidance have been revised and the topic was on the agenda for the meeting of the local vaccine preventable diseases leads from each local PHE Health Protection Teams (HPTs) in November 2018. At that meeting PHE finalised the revisions to template letters and various leaflets aimed at the MenACWY school and university programmes alongside more general guidance concerning adolescent vaccinations. These are available on the GOV.UK website³⁴ ³⁵ ³⁶.

PHE have also been working with the Sepsis Board to ensure that meningitis and other invasive infections are better reflected in the professional materials and public literature being produced around sepsis.

The PHE Field Service are leading a group looking at standardised collection of information around clusters and will be including a question on when/how charities are involved in cluster management.

A pilot project has been set-up across the south of England (London, Surrey & Sussex, Hampshire & Isle of Wight, and South West) to evaluate the acceptability of messaging sent to parents/students following a single case of invasive meningococcal disease associated with an educational setting. The project will involve the distribution of health information via digital methods, e.g. text and email, as well as by paper letter. Draft messaging was sent to lay people via one national meningitis charity, and feedback taken into account when developing the messages used for this project. The evaluation, by online survey and local focus groups, will cover both the content and method of sending the health information by PHE. Provisional results were presented at the PHE Public Health Research and Science Conference in April 2019. This project is ongoing and has been extended into the next meningococcal season from around September onwards³⁸.

The national team have recently met with one of the charities to scope out improving links between the charities and the local health protection teams, including possible joint training days, and working with the HPT vaccine preventable diseases leads group to ensure that affected families are offered early support.

Recommendation 7 - Meningitis charities

The charities should:

- Work with PHE as it reviews what messages should be included in its vaccinationrelated literature;

- Consider strategies to make parents and young people aware of, and direct them to, the literature and resources already available at the right time and work with PHE to seek to deliver these strategies;

- Consider how to improve their alignment with broader system-wide efforts to reduce sepsis and recognise it early, including working with the Cross-System Sepsis Board;

- Work with the Royal Colleges as needed when they review their sepsis-related training material.

Response from Meningitis Now

Meningitis Now indicated that they support working with PHE and other stakeholders in this area. It is critical that the consistent use of agreed information and messaging is available to both improving vaccine uptake and driving general disease awareness.

They have initiated a series of joint meetings with regional PHE health protection teams to improve communication around disease incidence and provide early support for families that have been affected. Meningitis Now has occasionally been asked to review documents, but this has not been on scheduled or planned basis, and so they would welcome PHE's lead in a structured review.

The charity has already formally reached out to PHE (and NHSE and DHSC) offering its support, based on their experience of running successful awareness programmes including a MenACWY campaign for parents, universities and students. The simplification and co-ordination of messaging is welcomed and could help improve vaccine uptake.

Meningitis Now also welcome the opportunity to work more closely with the Cross-System Sepsis Board, as there are synergies between their work and that of the Board. As stated in their informal submission to the Working Group, they also believe that the association of meningitis and sepsis could even help raise the profile of sepsis, given levels of fear and awareness of meningitis amongst groups such as parents.

Meningitis Now expressed that they are committed to recommendations 1, 2, 3, 4 and 11 and believe that if implemented as a package they could improve early diagnosis and

outcomes. The adoption of a consistent system-wide approach around sepsis and use of NICE Fever Guidelines and improved safety-netting processes, backed by CQUIN and CQC audit as required, would be a major step forward in fighting meningitis.

Meningitis Now further urge the medical Royal Colleges to give serious consideration to the recommendations 1, 2, 3, 4 and 11 and the role they can play in training and supporting their respective memberships in delivery of these.

Response from Meningitis Research Foundation (MRF)

The Meningitis Research Foundation (MRF) wanted a chance to review new literature on meningitis as it was created as well as allowing some direction to charity literature from both PHE and the NHS advice.

They also considered that it was important to ensuring links to charity literature on NHS choices, and PHE campaigns, and other organisations, and they are already been speaking with some organisations about this.

MRF commented that they had observed different PHE regions have slightly different ways of responding to cases.

MRF welcomed the opportunity to highlight areas where specific meningitis information is needed, working with the medical Royal Colleges as there are times when sepsis and meningitis need to be treated differently and this needs to be highlighted.

Since these recommendations were made, the MRF has now worked with both Public Health England and the NHS on awareness campaigns, both in a supportive and leading role. This has currently been on an ad hoc basis and they would welcome the opportunity to formalise this to share best practice.

MRF met with the Cross-System Sepsis Board to ask that sepsis messaging also enables people to 'think meningitis'. Currently campaigns stop giving information once sepsis is ruled out.

The MRF also want clinicians and Health Care Professionals to be pointed towards meningitis specific symptoms and treatment guidance; and urge for a stronger safetynetting approach so that meningitis-specific information is also given to parents.

Recommendation 8 - The Royal Colleges

The Royal Colleges should:

- Ensure that when relevant literature, tools and training packages are scheduled for review they:

Consider if and how to promote the message to 'listen to parents, carers and family members' and that 'parents know their child best' and to record parental views in the patient's notes, where that was not already done;

Engage with the meningitis charities for ideas on content and include a link to the charities' websites;

Take on board feedback from the Cross-System Sepsis Group.

- Consider having a champion (or equivalent), if they don't already have one to drive work forward on the recognition and diagnosis of sepsis;

- Consider whether they should recommend to their individual membership that they consider the value of additional training in sepsis identification and whether this needs to be achieved by all clinical members or specific subgroups.

- Reflect on how best to promote a culture where staff feel empowered to challenge within and between professional groupings and across different levels of seniority; and where staff are also open and responsive to challenge and to learning from mistakes and near misses whether via training or other means.

Response from the Royal College of Emergency Medicine (RCEM)

The Royal College of Emergency Medicine (RCEM) has produced a sepsis toolkit³⁹ with the UK Sepsis Trust. When the toolkit is next reviewed the RCEM will ensure the recommendations made by the Meningococcal Working Group, are taken into consideration.

In November 2018 RCEM ran a study day for emergency medicine clinicians focussed on listening to patients, entitled 'Hearing the patient's voice: what you must really do to listen to patients'. This study day will be rerun in October 2019 for RCEM members, nurses, students and non-members.

As recommended by the Working Group, the RCEM already has a sepsis champion to help drive forward work on recognition and diagnosis of sepsis.

RCEM Learning has several sepsis topics⁴⁰ to promote additional knowledge in this area.

In September 2018 RCEM partnered with the European Society for Emergency Medicine to run a congress that included the following sessions in addition to several posters and free papers:

- Sepsis in Older Patients: Recognition and Management
- Urosepsis

RCEM ran a national clinical audit on severe sepsis and septic shock for UK Emergency Departments in 2016/17. The report and department-level data are open access and freely available. The audit included 13,129 patients from 196 Emergency Departments, and made 6 key recommendations:

- All EDs should have a sepsis lead and a sepsis protocol
- RCEM recommends that all sepsis leads consider the following:
 - Is everything being done to ensure that a full set of timely observations is performed on every patient?
 - Is there a more senior doctor available to review patients with sepsis 24/7?
 - Is oxygen considered part of the treatment for sepsis and how is this clearly documented?
 - Is lactate measurement possible and simple in your department?
 - Does your hospital give clear instructions on which antibiotics should be used?
 - Does your protocol encourage urine output monitoring, especially if the patient does not require a catheter?

- Early recognition of sepsis is critical to the clinical outcome. All patients with suspected sepsis and a NEWS of 3 should undergo immediate screening for sepsis.

- Patient information should be provided to all patients, and/or relatives, admitted with sepsis.

- Standardise pathways of care for patients fulfilling sepsis criteria to improve timely delivery of care and therefore outcomes

- Education and training around these for wider team for early recognition and instigation of optimal care

Response from the Royal College of General Practitioners (RCGP)

The Royal College of General Practitioners (RCGP) have a long history of supporting the better and earlier diagnosis of sepsis and meningitis; and the issue of better identification of patients who might develop sepsis was discussed at the September meeting of the RCGP Council.

The RCGP has published the RCGP Sepsis Toolkit⁴¹. The Toolkit includes resources for GPs, patients, commissioners and practice teams with the aim to create a sepsis-aware community. In addition, the RCGP has published a myth buster article on sepsis for inclusion in Clinical News Magazine⁴².

The RCGP is supportive of effort so that clinicians working in primary care have the resources and flexibility to offer fast face to face access to parents with sick children. The RCGP already has a lead person responsible for driving forward work on sepsis.

The RCGP would like to see more research into effective assessments, particularly using clinical scoring tools and effective safety-netting advice.

The recognition of identifying the disease is of clear importance. The response from the RCGP highlighted that by December 2019, they propose to take the following actions:

- Contact and meet National Institute for Health Research and the Clinical Research Network in England to work towards securing funding into the research and evaluation of an integrated primary care sepsis clinical scoring system and the evidence-base around safety-netting of possible meningitis and sepsis in children and adults.
- Contact and meet PHE to discuss the use of the RCGP Research surveillance centre to set up a national primary care meningitis and sepsis surveillance programme.
- A further paper on the role of GPs in the better identification of sepsis will be discussed by the RCGP Council. A likely outcome will be a RCGP policy statement on best practice in general practice.

Response from the Royal College of Nursing (RCN)

Another part of the Members' Survey previously mentioned the RCN will look at how members are working currently to assure timely assessment and treatment. An important feature of the Royal College of Nursing survey will be to explore how to best promote a culture where staff feel empowered to challenge within and between professional groups, and that staff are responsive to learning from mistakes.

The RCN have held fringe events at RCN Congress on sepsis and also included sepsis as a topic for discussion and presentation at various RCN Forum Workshops.

The RCN have developed a range of resources to support nursing staff which include:

- A sepsis pocket reference guide for nurses with guidance on recognition and management of sepsis available via the RCN on-line page⁴³
- A National Competency Framework for emergency care nurses at level 1⁴⁴ and level 2⁴⁵, these include competencies and recognition and management of patients with sepsis and neurological conditions.
- The RCN have endorsed the STEPS 1-4 National Education and Competency Framework for critical care nurses⁴⁶ which include competencies for recognition and management of sepsis.
- The Commissioning Toolkit to support infection prevention and control includes specific references to commissioning criteria to support sepsis⁴⁷
- The RCN have developed resources First Steps⁴⁸, on-line resources on sepsis recognition, and escalation advice guidance for Health Care Assistants and Health Care Support Workers. These staff are the first health care practitioners to attend to patients.

The RCN has a dedicated on-line page for sign-posting members on sepsis information⁴⁹, it includes RCN activity and links to NICE Guidelines and the Quality Standards and Diagnostic Assessment Group, along with other useful resources and information. This page is reviewed on a regular basis.

In 2017 and 2018 the RCN worked with the Meningitis Research Foundation and Meningitis Now charities to help promote the importance of the meningococcal ACWY vaccine particularly. The RCN continue to work with the meningitis charities to discuss and identify content appropriate to their guidance. The online resources are updated at least annually but are easily amended and adapted more frequently as information becomes available. This is promoted to members via social media and other communication platforms.

The RCN will continue to engage with wider stakeholders and charities and are represented on national strategy groups to ensure that meningococcal disease and sepsis guidance and support is available to their members. They will continue to engage with health care practitioners to ensure that they develop the skills, confidence and competence to effectively diagnose and treat meningococcal disease and sepsis in a prompt and timely way.

Response from the Royal College of Physicians (RCP)

The Royal College of Physicians currently have a nominated sepsis lead. They work closely with the British Infection Association through their joint committee. In addition, they have close links with patients through their Patient Carer Network (PCN) and have patient representation on their patient safety committee where sepsis is often discussed.

Response from the Royal College of Paediatric and Child Health

The Royal College of Paediatric and Child Health have taken a number of steps to offer support to the paediatric profession, through external collaboration. This includes:

- Working with NHS England and NHS Improvement to improve compliance with three out of four of NHS England's prioritised acute 7-day standards so that children are seen in a timely way by a senior clinician. A national workshop was held on the 22nd November 2018.
- There is on-going work with the Care Quality Commission (CQC) to adopt the Facing the Future service standards as a quality measurement tool to be included in CQC inspections.

The RCPCH have produced service standards to improve the assessment and timely review of acutely sick children by a senior clinician and by working more effectively in teams across primary and secondary care. In addition, they have produced a number of educational packages and resources designed for both paediatricians and child health professionals to learn about the signs and symptoms of meningococcal disease and sepsis in infants, children and young people, support its early identification and diagnosis and the knowledge about how to treat it. Some examples are provided below. An e-learning course on bacterial meningitis and meningococcal septicaemia in children. This course helps healthcare professionals assess and manage children who present with possible bacterial meningitis and/or meningococcal septicaemia and is provided via open access COMPASS⁵⁰, which is RCPCH's online learning platform for paediatricians and child health professionals.

In March 2019, the RCPCH hosted a multidisciplinary face-to-face course on sepsis. The course programme includes the signs, symptoms and treatment of sepsis.

The RCPCH has endorsed a course, e-Tool for bacterial meningitis in young infants⁵¹, developed by the Meningitis Research Foundation for clinicians who want to improve their ability to assess and manage young infants (up to 3 months old) who present with possible bacterial meningitis.

After completing the eTool, health professionals should be aware of:

- Risk factors and clinical indicators for infection in young infants
- Which investigations should be carried out
- Importance of giving appropriate antibiotics and when these should be given
- Prognosis and long-term effects of meningitis.

Recommendation 9 - NHS Improvement

NHS Improvement should:

- Facilitate and support an open and learning culture within healthcare settings;

- Support the dissemination and implementation of learning strategies that are most likely to bring about behavioural change.

Response from NHS Improvement (NHS I)

The recommendations aimed at NHS I are an essential part of their national patient safety work and underpin much of what they support the NHS to do. Key areas where they will be able to drive further improvement include:

- A new Serious Incident Framework⁵²; NHS I have completed a major consultation with patients, their families, healthcare staff, commissioners, regulators and experts in investigation and in quality improvement, and hope to make significant improvements to how the NHS investigates, understands, and acts to improve the safety of care for future patients.
- Establishment of the new National Patient Safety Alert Committee (NaPSAC), which NHS I leads on behalf of all bodies that issue safety-critical advice. NaPSAC aims to ensure that advice is clear, focused, and fully implemented. This will include consideration of how best to bring about behavioural change.
- NHS I are creating further support materials for 'A Just Culture Guide'⁵³. This aims to support an open and learning culture and a focus on tackling the wider causes of any patient safety incident.
- NHS I's Patient Safety Collaboratives will continue to support local improvement in recognising and responding to patients who could be deteriorating, building on the Patient Safety Alert they issued to support a safe and rapid transition to the revised National Early Warning Score (NEWS2).

NHS I will continue to support the recommendations aimed at some of the other organisations, including through membership of the Cross-System Sepsis Board (including work on 'safety netting'), through their support to CQC on effective inspection for safety and through their work with the Medical Royal Colleges.

Recommendation 10 – Health Education England

Health Education England should:

- Facilitate and support an open and learning culture within healthcare settings;
- Support the dissemination and implementation of learning strategies that are most likely to bring about behavioural change;

- Engage with sepsis champions (or equivalent) in Royal Colleges and provide advice and information as needed.

Response from Health Education England (HEE)

Health Education England's (HEE) contribution is in relation to education and training.

In April 2018, HEE launched its extended sepsis in paediatrics resource⁵⁴ aimed at all clinical workers, that has a focus on meningitis. This case-based guide is aimed at supporting clinicians in the recognition and treatment of sepsis in children and involves their narratives, assessment, experiences and treatment.

The HEE Antimicrobial Resistance guide⁵⁵ to training resources has been published⁵⁶ to promote available learning on the management of infective states, infection prevention and control, antimicrobial residence and antimicrobial stewardship. The guidance aims to signpost educational materials to health workers and students, as well as promoting a centralised resource to educators. The guide also includes learning resources on meningitis within it.

A key area of work for HEE is to enhance system awareness of antimicrobial resistance and sepsis, including meningococcal disease. HEE are working with stakeholders, nationally and through their local networks, to disseminate areas of good practice and highlight available learning resources. HEE are working with their training hubs (also known as 'community education provider networks') to promote their products as well as gather information to inform their ongoing programme development.

A franchise package on sepsis (including meningitis) that can be delivered through the training hubs is being developed with the Royal College of General Practitioners. This will consist of two clinical scenarios, one of which will feature meningitis. HEE also hosted a conference on 27th November 2018, to raise awareness and engagement at a conference on antimicrobial resistance and infections.

HEE continue to promote developments in education and training through their engagement with their network of experts on the HEE sepsis working group, comprising of leads from Royal Colleges, arm's length bodies and the UK Sepsis Trust.

HEE has also won a funding bid from Department of Health and Social Care research to take forward a programme of work to 'Explore the role of behavioural science to understand and drive educational interventions on AMR'.

The importance of recognition of meningococcal infection and other causes of meningitis and sepsis is highlighted in many postgraduate curricula. HEE remains committed to delivering high quality education in support of each of these through its postgraduate school structures in medical disciplines such as general practice, paediatrics, emergency and general internal medicine.

Response from the Royal College of General Practitioners (RCGP)

The response from the RCGP highlighted that the signs, symptoms and treatments are taught at an undergraduate level and they are included in GP training. For example, all new general practitioners are taught and assessed against the requirement to "manage conditions and problems which may present early and in an undifferentiated way and recognise a seriously ill child and intervene urgently when required"⁵⁷. Within the section on clinical management, the identification and treatment of a child with meningitis is a specific condition that general practitioners are expected to know about. In addition, it is a subject that is covered in post-graduate training and especially in courses covering emergencies in general practice.

Recommendation 11 - The CQC

The Care Quality Commission should:

- Look for evidence that the NICE fever guideline in children under five years is being systematically implemented by healthcare professionals in primary and secondary care, in particular that safety- netting information is being given to parents and carers

- Organisations providing first aid/medical services at mass gatherings targeted at teenagers and young adults (especially those that span a number of days) use staff/volunteers who have been appropriately trained to recognise the signs and symptoms of meningococcal disease and sepsis.

Response from Care Quality Commission (CQC)

The CQC are in agreement that checking the implementation of the recommendations within NICE Clinical Guideline 160⁵⁸ would help reach the objectives set out by the working group.

With regards to CQC's inspections of primary and secondary care services, CQC will incorporate the guideline into their guidance for inspectors for children and young people in general practices and in the acute sector and report relevant findings under their 'safe' key question. These frameworks are used by CQC's inspection staff to guide them when inspecting care provided to children within a general practice's population and acute providers which deliver services to children up to the age of 18, including prompts to carry out while on-site. Once included in the inspection frameworks, compliance with the standards set out in the NICE guideline will be checked by CQC inspection staff where appropriate. This would include reviewing patient notes to check implementation of the guideline.

The CQC inspection frameworks are generally reviewed and updated every four to six months, so they will be in a position to make the necessary changes during the 2019/20 financial year.

CQC support the principle of staff providing first aid/medical services at mass gatherings being trained in identifying meningococcal disease. However, although ambulances services do generally fall into CQC's scope of registration, in relation to this recommendation there are exceptions that impact organisations providing first aid / medical services at mass gatherings as previously stated.

Response from the Royal College of General Practitioners (RCGP)

The RCGP commented that the NICE fever guideline for children is 'guidance' is potentially at odds with the presumption that the CQC should look for 'evidence' of systematic implementation with misunderstanding of what guidance is. It is however important that CQC should look for evidence that first aid/medical services at mass gatherings target at teenagers and young adults are able to recognise a range of serious illnesses including meningococcal disease and sepsis.

Recommendation 12 - NHS England

NHS England should:

- Ensure that the Cross-System Sepsis Board considers this report in full and reports back to the Secretary of State (SofS) on its conclusions and action it plans to take as a result within a timescale set by the SofS;

- Liaise with other organisations for whom this report has also made recommendations, to ensure their actions are considered and built into any wider plans related to sepsis as appropriate.

Response from NHS England

The report of the Meningococcal Working Group was considered at the Cross-System Sepsis Board meeting in July 2018. Representatives from PHE and the Meningitis Research Foundation were invited to discuss the key points contained in the report.

The Cross -System Sepsis Board will take the lead in ensuring that the recommendations are considered and built into wider plans related to sepsis and this will form part of the Boards on-going programme of work in 2019-2020.

ANNEX A - Organisation Summaries

British Red Cross

The British Red Cross have been providing care since they were established in 1870. They are a leading first aid educator and provider of First Aid at mass gatherings and events.

Care Quality Commission

The Care Quality Commission is the independent regulator of health and social care in England. They routinely inspect and monitor standards of care across England and have the power to take action where those standards are not met.

Cross-System Sepsis Board

The main purpose of the Cross-System Sepsis Board is to improve the prevention, early diagnosis and prompt treatment of sepsis in order to reduce the mortality and morbidity that it causes.

Health Education England

Health Education England supports the delivery of healthcare and health improvement to the patients and public of England by ensuring that the workforce has the right numbers, skills, values and behaviours.

Meningitis Now

Meningitis Now are a UK based charity who's aim is to see deaths from meningitis eliminated from the country and to provide support to everyone who has been affected in some way by the disease.

Meningitis Research Foundation

The Meningitis Research Foundation have three goals: to see fewer people get meningitis and septicaemia; to see more people survive with a better quality of life and reduced disability; to have more engaged, informed and supported patients and communities.

National Ambulance Service Medical Directors group (NASMeD)

The Association of Ambulance Chief Executives (AACE) is primarily a membership organisation providing ambulance services with a central body that supports, coordinates and implements nationally agreed policy. The primary focus of AACE is the ongoing development of the UK ambulance service and the improvement of patient care.

The National Ambulance Service Medical Directors Group (NASMeD) is a sub-group of the AACE comprising of the Medical Directors of the 10 English and devolved administrations ambulance services. The NASMeD noted that there had been no representative on the working group from ambulance services, and that none of the recommendations were directed specifically to the ambulance sector; however, they recognise the important role that ambulance services play in the recognition, assessment and management of these patients in the pre-hospital setting.

NHS England

NHS England set the priorities and direction of the NHS and encourage and inform the national debate to improve health and care. We want everyone to have greater control of their health and their wellbeing, and to be supported to live longer, healthier lives by high quality health and care services that are compassionate, inclusive and constantly-improving.

NHS Improvement

NHS Improvement is responsible for overseeing foundation trusts and NHS trusts, as well as independent providers that provide NHS-funded care. We offer the support these providers need to give patients consistently safe, high quality, compassionate care within local health systems that are financially sustainable. By holding providers to account and, where necessary, intervening, we help the NHS to meet its short-term challenges and secure its future.

Public Health England

Public Health England are responsible for making the public healthier and reducing differences between the health of different groups by promoting healthier lifestyles, advising government and supporting action by local government, the NHS and the public. Protecting the nation from public health hazards and preparing for and responding to public health emergencies.

Royal College of Emergency Medicine

The College is established to advance education and research in Emergency Medicine. The College is responsible for setting standards of training and administering examinations in Emergency Medicine for the award of Fellowship and Membership of the College as well as recommending trainees for CCT in Emergency Medicine. The College works to ensure high quality care by setting and monitoring standards of care, and providing expert guidance and advice on policy to relevant bodies on matters relating to Emergency Medicine.

Royal College of General Practitioners

The Royal College of General Practitioners aims to encourage and maintain the highest standards of general medical practice and to act as the 'voice' of GPs on issues concerned with education; training; research; and clinical standards. Founded in 1952, the RCGP has just over 52,000 members who are committed to improving patient care, developing their own skills and promoting general practice as a discipline.

Royal College of Nursing

The Royal College of Nursing are both a professional body, carrying out work on nursing standards, education and practice, and a trade union. They are the 'voice' of nursing with 435,000 registered members.

Royal College of Paediatric and Child Health

The Royal College of Paediatric and Child Health has the health and wellbeing of infants, children and young people the core of all we do. They aim to ensure every paediatrician has the knowledge, expertise and support to promote child health and to care for infants, children and young people with health needs.

Royal College of Physicians

The Royal College of Physicians raises healthcare standards by setting training curricula and exams for physicians. We improve patient care directly in hospitals through significant work programmes including clinical audits and accreditation schemes, quality improvement and patient safety initiatives, and by developing guidelines for high-quality care on behalf of NICE. The RCP champions medical professionalism and leadership, promotes personcentred care and drives improvements in clinical practice.

St. John's Ambulance

St John Ambulance is the nation's leading first aid charity. Our volunteers provide first aid in their communities, keeping people safe at events, and working alongside the NHS in response to 999 calls. We're also always campaigning to raise awareness of first aid and directly educate the public.

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