To: **National Quality Board**

For meeting on: 07 June 2017

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Paper for:

Decision	Discussion	Information
	X	X

Title: **Sepsis programme – new action plan and national consistency**

Summary:

This paper provides an update on the cross system work around Sepsis and seeks the Board's views on the proposed new sepsis action plan for 2017/18. The paper also raises similarities with work programmes across ALBs and highlights the importance for a coordinated approach.

Purpose:

The NQB is asked to:

1) **Acknowledge** the work on sepsis to date;

2) **Provide** feedback on the proposed new 2017/18 sepsis action plan;

3) **Consider** how to enhance existing alignment arrangements across ALBs to ensure the successful delivery of related programmes such as: sepsis; anti-microbial resistance; gram negative bacteraemia; infection prevention and control. With NQB endorsement this can be progressed outside the meeting.

ALB Involvement in development and sign-off of paper:

NHS England	Care Quality Commission	NHS Improvement	NHS Health Education England
X			

Public Health England	NICE National Institute for Health and Care Excellence	NHS Digital	DH Department of Health

Background

Sepsis is a clinical syndrome caused by the body's immune and coagulation systems being switched on by the presence of infection (bacteria or viruses) in the blood. Young children, elderly people, pregnant and post-partum women are most at risk of sepsis, alongside people who have an impaired immunity due to certain diseases, drugs or treatments.

The number of people developing sepsis in England is increasing, with at least 123,000 cases each year. An estimated 37,000 deaths are associated with the condition. UK Sepsis Trust estimates that 10,000 deaths could be avoided each year through prevention or early accurate diagnosis and effective treatment[1].

Ensuring consistancy across ALB work programmes

ALBs are working together to: prevent and control infection; reduce sepsis related mortality and morbidity; and to reduce anti-microbial resistance (AMR). For example, NHS Improvement and Public Health England lead work to reduce the incidence of gram negative bacteraemias caused by organisms such as E. coli. Concurrently, the Department of Health, NHS England and NHS Improvement are working towards reducing the incidence of AMR.

These objectives are sometimes seen to be in conflict because of a prevailing belief that tackling sepsis requires a higher rate of antibiotic use, while tackling AMR requires lower rates. This is not the case as both can be achieved concurrently through a coordinated approach. Reducing the incidence of infection will benefit both sepsis and AMR as fewer infections will lead to fewer cases of sepsis and less use of antibiotics overall. Similarly, ensuring the right antibiotics are administered to the right person at the right time will improve outcomes for sepsis and reduce the incidence of resistant organisms. This work ranges from maintaining geographical oversight of organism resistance to advances in point of care testing and genomics.

Tackling infection, sepsis and AMR in isolation could result in efforts to reduce one at the expense of the other. Therefore, ALBs have worked together to improve alignment across workstreams. The cross-system Sepsis Board[2], hosted by NHS England, ensures a coordinated approach to sepsis across ALBs. But as work programmes move to wider themes of better prevention, recognition and management of deterioration, such is the case for patient Safety Collaboratives, hosted by NHS Improvement, we must continue to work closely with one another to maximum benefit for patients across a wider related workstream. This will ensure there is consistency in messaging and in practical application on the front line.

The board is asked to consider how continued and greater alignment across ALB programmes might be achieved in the most effective way. With NQB endorsement, this can be taken forward outside of the meeting.

[1] https://www.england.nhs.uk/2016/11/nhs-unites-to-tackle-sepsis/
[2]. https://www.england.nhs.uk/ourwork/part-rel/sepsis/

Sucessful delivery of sepsis work to date 2015/16 and 2016/17

In 2015 NHS England set up a cross-system sepsis board involving ALBs, Royal Colleges, the UK Sepsis Trust, AHSNs and a range of clinical experts from across the country. Our purpose was to describe the work that each was doing on sepsis and ensure alignment between these various programmes. An action plan was published and the Board has continued to meet regularly and confirmed the delivery of the plan. Working closely with the UK Sepsis Trust, ALBs have played an important role in improving the prompt recognition and treatment of sepsis. Key achievements to date include:

- **Preventing avoidable cases of sepsis.** Some cases are preventable, particularly in 'at risk' groups including older people, the immunosuppressed, pregnant women and children.
    - NHS England, Care England and the National Care Forum have gathered examples of best practice in care home sector with regards to UTIs and sepsis, and have shared this learning.
    - NHS England published a continence framework outlining good practice, which can help to reduce the onset of UTIs – a major source of sepsis.
    - NHS England commissions an extending range of immunisation programmes, offered systematically against flu, pneumococcal pneumonia and meningitis, including:
        - pneumococcal polysaccharide vaccine (PPV) vaccination (aged 65 and over)
        - Flu vaccination (aged 65 and over)
        - Flu vaccination (for those in risk groups)
        - Flu vaccination (for children aged two to eight)
        - Men B vaccination (for children)
        - Hib/Men C vaccination (for children)
        - Men ACWY vaccination (13-14 year olds)

- **Increasing awareness of sepsis amongst the public and professionals** – Treatment of sepsis is extremely time-sensitive, so improving recognition could help save lives. Work delivered in this area includes:
    - UK Sepsis Trust has developed a 'sepsis savvy' microteaching sessions for parents and lay people to raise awareness using a social media as the main outreach.
    - Public Health England has assessed the evidence base and delivered a large scale public awareness campaign on sepsis. Their aim was to support earlier diagnosis of sepsis by improving knowledge of sepsis, its symptoms and when to seek urgent healthcare advice, amongst parents and carers of children age 0 – 4.
    - Sir Bruce Keogh led a seminar to improve sepsis awareness among healthcare professionals and published guidance that was sent to all Medical Directors in the NHS.

- The Patient Safety Team - at the time within NHS England and now within NHS Improvement - issued a patient safety alert[3] to raise awareness of sepsis and to signpost clinicians in the ambulance service, primary and community services and secondary care to a set of resources developed by the UK Sepsis Trust, and others. These resources support the prompt recognition and initiation of treatments for all patients suspected of having sepsis.
- The Secretary of State for Health has actively supported the Sepsis campaign and has met with bereaved families.

- **Improving identification and treatment of sepsis across whole care pathway** to ensure that patients receive the care they need irrespective of the first point of contact with health services. Actions include:
  - The Care Quality Commission looks at how trusts are implementing NICE's sepsis guidance (NG51) issued in 2016[4].
  - NHS England and Improvement have introduced a sepsis CQUIN since 2015 that rewards acute trusts for prompt identification and treatment of sepsis in both emergency admissions and in-patients. This has led to significant improvements in the prompt recognition and treatment of sepsis in both emergency departments and on in-patient wards. [On average in the data returned from EDs screening for sepsis increased from 52 to 85% and prompt treatment from 49 to 62%; for in-patients screening for sepsis increased from 62 to 69% and prompt treatment from 6- to 64% in the first 18 months of the CQUIN]
  - EMIS and SystmOne have developed sepsis 'pop-ups' to prompt GPs to consider sepsis in sick children with fever
  - HEE has assessed the existing range of educational materials on sepsis and developed some focussed products including a video for healthcare professionals

- **Improving consistency of standards and reporting** –Robust information is needed on the true prevalence and associated burden of sepsis to inform future quality improvement initiatives. Actions include:
  - NICE has published a clinical guideline in 2016 and is due to publish a quality standard in 2017.
  - NHS Digital has produced SNOMED code sets representing the standard/acceptable clinical phrases for sepsis following publication of new international definitions of sepsis
  - Ensuring appropriate antibiotic prescribing –NHS England and NHS Improvement have explored ways to reduce the inappropriate use of antibiotics and to build in the incentive into all hospital activities.
  - NHS Improvement AMR leads have worked with NHS England to support testing of the use of a GP Practice based audit tool as part of the sepsis programme – PRIMIS tool audits the management of fever in the under 5s

[3] https://www.england.nhs.uk/2014/09/psa-sepsis/
[4] https://www.nice.org.uk/guidance/ng51

aligned to NICE CG160. https://www.nottingham.ac.uk/primis/tools-audits/tools-audits/feverish-illness.aspx

Current and planed work on sepsis for 2017/19

The cross-system Sepsis Board is developing a new action plan for 2017-19 - full details of the draft version are shown in annex A. The plan will include the following.

- **New financial incentives for hospitals**, 2017-19 CQUIN on reducing the impact of serious infection brings together standards to reduce sepsis and those aimed at reducing antimicrobial resistance

- **Improving consistency and transparency of reporting**;
    - NHS England intends to include a sepsis specific indicator to the Clinical Commissioning Group Improvement and Assessment Framework in 17/18.
    - NHS Digital is rolling out the new sepsis coding to improve the accuracy of sepsis data collection.
    - The Learning from Deaths programme is an opportunity for provider organisations to review their deaths from sepsis (a typical cause of potentially preventable death) and develop actions to reduce the risks for future patients. Trust Boards have to report regularly on their learning from deaths from Q3 2017/8 and include improvement actions in their Quality Accounts from 2018.

- **Production and distribution of educational materials to support healthcare professionals** –
    - Health Education England is developing educational modules on sepsis for community pharmacists and HCPs.
    - Good practice and evidence-based improvements will be shared via existing networks, such as the Patient Safety Collaborative and through online resources. A communications plan will be developed to set this out clearly.

- **Safety netting for GPs and parents.**
    - NHS England will work with GPs and CCGs to encourage the take up of specific GP software which includes pop-ups and printed information for GPs to give to parents of sick children.
    - NHS England is working with the Health Innovation Network (HIN) to produce a video for parents of sick children to help spot the signs of sepsis.
    - Following examples from Cornwall and Devon, NHS England and Public Health England will work with maternity networks and Health Visitors to ensure resources such as leaflets and on-line educational material are used by midwives and health visitors to help parents recognise serious

illness in children and know what to do if they think their child is seriously ill.

- **National Early Warning Score system** to improve the identification and treatment of sepsis across the whole patient pathway. The Sepsis Board supports the refreshed NEWS score and its use to identify people who may be developing sepsis. NHS England is also working with 111 services to ensure paediatric sepsis is identified. The work in the urgent and emergency care programme with NHS Digital to facilitate the appropriate sharing of healthcare records will support this. We are engaging with the Royal College of Paediatrics and Child Health in their work to develop appropriate early warning scores for assessing children.

- **Information on sepsis to be included in the 'Red Book'** - the personal child health record or Red Book is given to every new parent to keep track of their child's health and progress. The Royal College of Paediatrics and Child Health has updated the national template to include information on how to tell if your child is seriously ill, has produced online support for non-expert clinicians on sepsis and is planning to produce further online materials for parents.

- **Improved understanding of the impact of sepsis**. Through the UK Sepsis Trust NHS England is supporting the evaluation of a virtual registry approach to better understand the impact of sepsis in terms of long term morbidity and economic costs

ANNEX A: Proposed 2017/18 sepsis action plan

THEME	ACTION
Prevention	Continue to roll out the free flu and meningitis vaccines to primary care school children, and roll out further to secondary school children
	Identifying at risk groups
	Pneumonia care bundle
Improving identification and treatment of patient across the whole pathway	Support the implementation of the CCG IAF sepsis indicator, working with NHS RightCare and STP partnerships
	Work with GP software providers EMIS/TPP to update their sepsis alert algorithms
	Support the 111 pilot work on clinical remote assessment of sick children
Safety Netting	Produce NHS branded spotting serious illness in children leaflet/online resource aimed at patients and parents and designed to support conversations about sepsis between healthcare staff and patients/parents – e.g. Royal Cornwall model for midwives, Devon model for health visitors
	Embed safety netting among all healthcare professionals assessing patients with infections – adults and children (as per NICE Quality Standard).
Education	Promote educational materials esp. around the trigger for sepsis
	Education materials: community pharmacists
	Education materials: community HCPs
	Certification –pharmacists, Centre for Pharmacy PGE,
	Certification - health visitors
	Certification - inclusion in BLS resuscitation course
	Support the development of a range of educational resources for HCPs developed by HEE
Standards and reporting	Standardise operational definition of adult sepsis
	Standardise the use of NEWS in the definition of deterioration
	Support implementation of the new coding to improve accuracy of sepsis
	Improve the data analysis of the impact of the CQUIN and sepsis
	Ensure the sepsis CQUIN data, currently available on Unify2, is also made available via the PHE Fingertips web portal
	Continue the roll out of the GRASP fever audit tool in GP practices, with 150 practices to have uploaded in 2017/18
	Evaluate the possible development of a national registry for sepsis
Frail Elderly	Support the work being undertaken by NHS England LTC programme to systematise assessment of frailty in the elderly and develop a framework for assessment of deterioration in frail elderly people
	UTIs in care homes
	Support and promote the care home app, developed by UCL

AMR and Gram negative	*Ensure alignment with AMR work (within NHS England links to Keith Ridge and Sue Hill) and with new national initiative to reduce Gram negative bacteraemia by half by 2020*
Source Control	*Where there is a focus of infection that has caused sepsis, this requires urgent drainage as well as antibiotic treatment e.g. abscesses, empyema, infected obstructed ureter or bile duct. This may link with above*
Support the U&E care team with NHS Digital	*Support the work of the Urgent &Emergency Care team with NHS Digital and 111 to facilitate appropriate shared access to healthcare records e.g. access to primary care record for a healthcare professional assessing a frail elderly care home resident, or a 111 clinician assessing a child remotely who has previously been seen recently by their GP.*
NICE QS	Feedback on the consultation and promote the standard when published
Stakeholder mapping	Scope out the roles of all relevant stakeholders in all of the above: first by identifying what members of the cross-system Sepsis Board can contribute to each of the actions above, and second by engaging with wider group of stakeholders e.g. professional and managerial leaders both nationally and locally via regions and STP footprints.
Patient Involvement	To ensure patient involvement is integral to the work we undertake and support
Celebrating achievements/good practice	Develop Case studies and a web repository to highlight the work undertaken
Learning from deaths	Link with the Learning from Deaths team in NHS Improvement
Deteriorating patient	Link with the work of NHS Improvement and the Patient Safety Collaborative
Horizon scanning	Ensure horizon scanning is undertaken to inform future decision making - this also includes looking at what future biomarkers for sepsis may be available
	Support/watching brief role