NATIONAL INSTITUTE FOR HEALTH AND CARE EXCELLENCE

NICE guidelines Equality impact assessment

Sepsis: recognition, diagnosis, and early management non antibiotic early management in NEWS2 population (update)

The impact on equality has been assessed during guidance development according to the principles of the NICE equality policy.

1.0 Checking for updates and scope: before scope consultation (to be completed by the Developer and submitted with the draft scope for consultation)

1.1 Is the proposed primary focus of the guideline a population with a specific communication or engagement need, related to disability, age, or other equality consideration? Y/N

If so, what is it and what action might be taken by NICE or the developer to meet this need? (For example, adjustments to committee processes, additional forms of consultation.)

No

1.2 Have any potential equality issues been identified during the check for an update or during development of the draft scope, and, if so, what are they?

This EIA document is an addendum to the existing EIA for Sepsis: recognition, diagnosis and early management update of NG51 (which commenced in June 2022 and considered recommendations on NEWS2 for risk stratification in people aged 16 or over who are not and have not recently been pregnant in acute mental health, hospital and ambulance settings, and the timing of administration of antibiotics for people with suspected sepsis). This EIA will only cover potential equality issues related to the scope of this update of NG51 which considered recommendations on non-antibiotic management of suspected sepsis in acute hospital settings. It should be read in conjunction with the document for equality issues identified in the previous update of NG51 which commenced in June 2022.

This document has been compiled based on the June 2022 EIA undertaken for the previous update of NG51 and subsequent review of potential equalities issues by the

Committee responsible for this 2023 update of NG51. The 2023 update focuses on creating a cohesive sepsis guideline by reviewing the existing risk stratification system in the recommendations on early non-antibiotic management to incorporate the National Early Warning Score (NEWS2) for evaluating risk level in people with suspected sepsis:

• Age

NEWS2 is for people aged over 16 years, therefore the recommendations being considered in this update will not consider people aged under 16 years. However, this population is included in current recommendations and these recommendations will remain in the updated guideline.

At Committee (13/07/23) it was highlighted that older age is risk factor for Sepsis. NICE CKS (2020) highlights that being over 75 years of age and being very frail are risk factors for sepsis (NICE CKS, 2020). NICE CKS (2020) highlights that age-specific mortality rates were higher at the extremes of age, with the rate in infants under one year being similar to that in people aged 60 years and over (NICE CKS, 2020). The Committee have outlined that the additional prevalence and risk associated with sepsis in older people should be considered in this update.

• Disability

At Committee (13/07/23) the Committee noted that people with a learning disability, people with cognitive impairment (for example dementia) and people with communication difficulties may face additional challenges when describing symptoms which could lead to further difficulty in ascertaining a diagnosis of suspected sepsis. Specific consideration may need to be given to people with a learning disability, people with cognitive impairment (for example dementia) and people with communication difficulties when developing recommendations.

- Gender reassignment None
- Pregnancy and maternity

The NEWS2 should not be used for women who are or have recently been pregnant. The June 2022 update of the NG51 did not consider this population and this update will not consider this population given its focus on the alignment of risk stratification criteria within draft recommendations on non-antibiotic management of suspected sepsis in acute hospital settings. However, these populations are included in current recommendations and these recommendations will remain in the guideline when this update is completed.

Race

No issues were identified during the June 2022 update. At Committee for this update (13/07/23) it was outlined that people from minority ethnic groups may be at greater risk of sepsis. There is limited UK data that highlights this trend for sepsis specifically but in terms of broader infectious diseases there is non-UK evidence (USA) which suggests that ethnic minorities experience infectious diseases at higher rates (Ayorinde et al 2023). Further evidence (USA) highlights a persistent variability in clinical outcomes across racial groups, with higher rates of morbidity and mortality in sepsis in minority ethnic groups linked to healthcare disparity (DiMeglio et al 2018). This disparity could be linked to a lack of awareness of the need to adjust test results to consider differences between racial groups, leading to poorer care for these groups. For example, some pulse oximetry devices have been reported to overestimate oxygen saturation levels in people with darker skin, which may lead to them not being treated when treatment is needed unless an adjustment is made in interpreting the test results. The Committee have outlined that the risk associated with sepsis regarding race should be considered in this update.

• Religion or belief

None

Sex

None

Sexual orientation

None

• Socio-economic factors

No issues were identified in the June 2022 update. At Committee for this update (13/07/23) it was outlined that socio-economic factors may have an impact on the recognition, diagnosis, and early management of sepsis. Evidence suggests that lower socio-economic status can contribute to an increase in mortality and intensive care unit admission in patients with sepsis (Chiu et al 2019). More generally, people living in lower socioeconomic areas have a lower life expectancy than the general population but there is limited UK data that highlights this trend for sepsis specifically although in terms of broader infectious diseases, antimicrobial resistance, and incomplete/delayed vaccination there is

evidence which suggests that people in inclusion health groups and with lower socioeconomic status are consistently at higher risk (Ayorinde et al 2023). There is non-UK (USA) evidence that suggests that the incidence of sepsis disproportionately affects individuals with low socioeconomic status and increases the risk of poorer outcomes (Minejima et al 2021). Evidence suggests that there are increased barriers to care access for people with low socioeconomic status which include cost, transportation, poor health literacy and lack of social network which potentially contributes to the identified disproportionate impacts felt by this group. The Committee agreed that socioeconomic factors should be considered in this update.

• Other definable characteristics:

In the June 2022 update, the need to have specific consideration for people who do not speak English or whose first language is not English was raised. This item also applies to this update which focuses on creating a cohesive sepsis guideline by switching the risk stratification system in the recommendations on early non-antibiotic management within sections 1.10 to 1.13 to the NEWS2 risk strata. At Committee for this update (13/07/23) 3 further populations were identified:

- Newly arrived migrants (including refugees, asylum seekers and 0 unaccompanied asylum-seeking children, irregular migrants). There is limited UK evidence that highlights a trend for these populations regarding additional sepsis risks. Non-UK evidence (Danish) highlights that vulnerability towards blood stream infections varies based on migrant status, but overall refugees had a higher risk of bloodstream infections (Nielsen et al 2021). These populations will often embark on arduous journeys and combined with often precarious living and housing circumstances may impact their nutrition and their immune system contributing to increased risk of infectious disease such as sepsis. This risk may be further increased if they have poor access to healthcare services (Rudd et al 2018). This trend is likely to vary between countries due to differences in immigration patterns, vaccine status, variations in rates of antimicrobial resistance, as well as the impact of previous childhood disease. The Committee agreed that these populations should be considered in this update.
- People experiencing homelessness. People experiencing homelessness are more likely to delay seeking care and there is non-UK evidence (USA) to suggest that they are more likely to die following an admission for severe sepsis which is linked to the increased likelihood of delayed presentation (Shahryar et al 2014). More generally those experiencing homelessness are more likely to have poor physical and mental health, more vulnerable to issues associated with alcohol and drug use and can experience significant barriers to accessing health services

which given the need for timely management if sepsis is suspected can result in greater adverse outcomes. The Committee agreed that people experiencing homelessness should be considered in this update.

- People with low levels of literacy/health literacy: Literacy and health 0 literacy entail people's knowledge, motivation, and competence to access, understand, appraise, and apply health information to make judgments and take decisions in everyday life concerning healthcare, disease prevention, and health promotion to maintain or improve quality of life during their life course. People with low levels of health literacy are potentially more likely to be under-vaccinated and thus more vulnerable to contracting sepsis and potentially delay seeking care if sepsis is suspected. Low health literacy was associated with a decreased likelihood of using preventative health measures, and in one review this was associated with those aged 65 years and over (older age has been identified as a risk factor for sepsis). People with low literacy levels may be unable to understand information leaflets relating to their care or recognise the signs and symptoms of sepsis if they develop. The Committee agreed that people with low levels of literacy/health literacy should be considered in this update.
- 1.3 What is the preliminary view on the extent to which these potential equality issues need addressing by the Committee?

The following potential equality issues will be considered for the key questions included in this update of NG51. The following issues were identified in the June 2022 update but also apply to this update which focuses on creating a cohesive sepsis guideline by switching the risk stratification system in the recommendations on early non-antibiotic management within sections 1.10 to 1.13 to the NEWS2 risk strata:

- Disability and people who do not speak English or whose first language is not English: specific recommendations may need to be made for these groups.
- Age and pregnancy and maternity: The recommendations being updated in this guideline will not consider people under 16 years or pregnant women or women who were recently pregnant, however these populations are included in current recommendations within NG51 and will remain in the updated guideline.

The following potential equality issues were identified in Committee for this update (13/07/23) and will be considered:

• Age (older age and frailty), race, socio-economic factors, newly arrived migrants (including refugees, asylum seekers and unaccompanied asylum-seeking

1.3 What is the preliminary view on the extent to which these potential equality issues need addressing by the Committee?

children, irregular migrants), people experiencing homelessness and people with low levels of literacy/health literacy: specific recommendations or references within recommendations may need to be made for these groups.

Completed by Developer: James Jagroo

Date: 14/07/2023

Approved by NICE quality assurance lead ___Victoria Axe

Date__08/11/23_____

2.0 Checking for updates and scope: after consultation (to be completed by the Developer and submitted with the revised scope)

2.1 Have any potential equality issues been identified during consultation, and, if so, what are they?

N/A

2.2 Have any changes to the scope been made as a result of consultation to highlight potential equality issues?

N/A

2.3 Have any of the changes made led to a change in the primary focus of the guideline which would require consideration of a specific communication or engagement need, related to disability, age, or other equality consideration?

If so, what is it and what action might be taken by NICE or the developer to meet this need? (For example, adjustments to Committee processes, additional forms of consultation)

N/A

Updated by Developer: James Jagroo

Date: 10/08/23

Approved by NICE quality assurance lead ____Victoria Axe

Date____08/11/23_____

3.0 Guideline development: before consultation (to be completed by the Developer before consultation on the draft guideline)

3.1 Have the potential equality issues identified during the scoping process been addressed by the Committee, and, if so, how?

This EIA document is an addendum to the existing EIA for Sepsis: recognition, diagnosis, and early management update of NG51 (which commenced in June 2022) and will only cover potential equality issues related to the scope of this element of the update of NG51. It should be read in conjunction with the document for equality issues identified in the June 2022 update of NG51.

At Committee (meeting on 13/07/23) issues related to older age, race, socioeconomic factors, newly arrived migrants, people experiencing homelessness and people with low levels of literacy/health literacy were discussed but no evidence was found for these characteristics during development for this update. At Committee (08/08/23) minor updates were made to the recommendations to reflect the revisions to the risk strata. The Committee discussed the impact of the minor updates to recommendations on people using services, but no potential equality issues were identified. The Committee focused on creating a cohesive sepsis guideline by switching the risk stratification system in the recommendations on early nonantibiotic management to the NEWS2 risk strata. The proposed amendments seek to ensure that those at greatest risk of severe illness or death from sepsis are identified and receive appropriate care and treatment. The Committee felt the alignment of the risk strata would improve implementation of the recommendations and therefore improve equity and access to care.

3.2 Have any **other** potential equality issues (in addition to those identified during the scoping process) been identified, and, if so, how has the Committee addressed them?

No

3.3 Have the Committee's considerations of equality issues been described in the guideline for consultation, and, if so, where?

As outlined in section 3.1 of this EIA the Committee agreed that the alignment of the risk strata would improve implementation of the recommendations and therefore improve equity and access to care. These alignments appear in the non-antibiotic recommendations within the section on managing suspected sepsis in acute hospital

3.3 Have the Committee's considerations of equality issues been described in the guideline for consultation, and, if so, where?

settings for those identified as being at high risk, moderate risk, low and very low risk of severe illness or death from sepsis.

Recommendations on early non-antibiotic management for those identified as being at moderate risk and low risk, have been amended to include additional safety netting advice (with pre-existing recommendations on early non-antibiotic management for those identified as being at moderate risk and low risk including the provision of information on the management of peoples definitive condition and the warning signs for sepsis to look out for) would help address the issue raised regarding patient information and health literacy.

3.4 Do the preliminary recommendations make it more difficult in practice for a specific group to access services compared with other groups? If so, what are the barriers to, or difficulties with, access for the specific group?

No issues were identified that indicate that the preliminary recommendations make it more difficult for a specific group to access services compared with other groups.

3.5 Is there potential for the preliminary recommendations to have an adverse impact on people with disabilities because of something that is a consequence of the disability?

No issues were identified that indicate that the preliminary recommendations would have an adverse impact on people with disabilities that is a consequence of their disability.

3.6 Are there any recommendations or explanations that the Committee could make to remove or alleviate barriers to, or difficulties with, access to services identified in box 3.4, or otherwise fulfil NICE's obligation to advance equality?

No issues were identified that indicate that the preliminary recommendations make it more difficult for a specific group to access services compared with other groups.

Completed by Developer: James Jagroo

Date: 10/08/23

Approved by NICE quality assurance lead ____Victoria Axe

Date__08/11/23_____

4.0 Final guideline (to be completed by the Developer before GE consideration of final guideline)

4.1 Have any additional potential equality issues been raised during the consultation, and, if so, how has the Committee addressed them?

• Age

Stakeholders (n=3) referred to the 16 to 24 year old age group as potentially being at risk of being stratified incorrectly into NEWS2 risk category due to 'compensating' and the potential for those in the 16 to 24 year old age group to display low NEWS2 scores despite being very unwell for example their cardiovascular and blood pressure measures appear fine but this is due to their bodies 'compensating' and infections such as sepsis are not being picked up until it is too late.

A stakeholder (n=1) provided UK-based data highlighting the interaction of socioeconomic deprivation and other risk factors including severe frailty and being housebound which are more prevalent with age, as being associated with an increase of sepsis and 30-day mortality in England.

The Committee did not think that the issue raised regarding 16 to 24 year olds and 'compensating' represented an equalities issue per se and were satisfied that this issue has been addressed in recommendations that are part of the wider NG51 guideline but were not part of this update under consultation. NG51 has a recommendation on 'People who are most vulnerable to sepsis' which highlights groups who are at higher risk of developing sepsis and includes very young people, older people, people with impaired immune systems, those who have recently undergone surgery, those who have experienced a breach of skin integrity, women who are pregnant and neonates. The Committee highlighted that the recommendation on 'Interpreting findings' which falls under a broader title of 'Face to face assessment' makes specific reference to the need to account for the fact that some groups of people with sepsis may not develop a raised temperature for example people who are very old, frail, young infants and children; that heart rate needs to be interpreted in the context of baseline heart rate being lower in young people and adults who are fit, and that older people with an infection may not develop an increased heart rate or may develop a new arrhythmia in response to an infection; and that the presence of normal blood pressure does not exclude sepsis in children and young people. The Committee highlighted that recommendation on 'evaluating risk level' which falls under a broader title of 'Evaluating risk and managing suspected sepsis in over 16s (not pregnant or recently pregnant)' makes specific reference to 'using the persons history, physical examination results and criteria based on age in community and custodial settings; and 'interpreting NEWS2 scores within the context of the persons' underlying physiology and comorbidities' and that 'when evaluating the risk of severe illness or death from sepsis in people aged 16 or over with suspected or confirmed infection, use clinical judgement to interpret NEWS2 scores' in acute hospital settings, acute mental health settings and ambulances.

These other NG51 recommendations will be brought together with the recommendations that are the focus of this consultation to form a comprehensive

4.1 Have any additional potential equality issues been raised during the consultation, and, if so, how has the Committee addressed them?

guideline.

Disability

Stakeholders (n=6) highlighted concerns regarding people with a learning disability and autism, and the potential for the detection of behaviour or altered mental state being missed when assessing an individual using NEWS2. Reference has been made to the potential for a skewing of NEWS2 scores and diagnostic overshadowing with an underestimation of NEWS2 scores in those with a learning disability and/or autism. Stakeholders also (n=2) raised concerns that whilst the guideline refers to the consideration of patients underlying physiology when interpreting NEWS2 scores, factors such as altered mental state could be missed especially in those with a learning disability or for those with autism and dementia. Concerns were raised that the 'baseline' or what is considered 'normal behaviour' in people with a learning disability or autism, or dementia would not necessarily be known to the individual assessing the patient so making an assessment without an understanding of the history of the patient could lead to mis-categorisation of sepsis risk level. A stakeholder (n=1) outlined data from a published UK study highlighting the interaction of socioeconomic deprivation and other risk factors including learning disabilities as being associated with an increase of sepsis and 30-day mortality in England. Stakeholders (n=2) outlined the need for the guideline to consider reasonable adjustment especially in the context of maximising engagement in physiological assessments for the purposes of NEWS2 score calculation particularly in those with a learning disability.

The Committee considered these comments and did not think any changes were required as they were covered in other NG51 recommendations that did not form part of this part of the update of NG51. The Committee highlighted that in the full NG51 guideline there are recommendations that would account for the needs of those with a learning disability, autism or dementia and the reasonable adjustments required to engage with populations faced with specific barriers, and that these other NG51 recommendations will be brought together with the recommendations that are the focus of this consultation to form a comprehensive guideline. The Committee outlined that the recommendation on 'When to suspect sepsis' that was not included as part of the consultation outlines the need to 'take into account that people with sepsis may have non-specific, non-localised presentations, for example feeling very unwell, and may not have a high temperature. The recommendations go on to say 'pay particular attention to concerns expressed by the person and their family or carers, for example changes from usual behaviour and 'assess people who might have sepsis with extra care if they cannot give a good history (for example, people with English as a second language or people with communication problems). The Committee recognised that providing examples of 'people with communication problems' would be useful and have made changes that now make specific reference to "learning disabilities" and "autism." The Committee highlighted that the recommendation on 'Interpreting findings' that was not included as part of the consultation which falls under a broader title of 'Face to face assessment' makes specific reference to the need to account for 'confusion, mental state and cognitive

4.1 Have any additional potential equality issues been raised during the consultation, and, if so, how has the Committee addressed them?

state in suspected sepsis'. These recommendations highlight that the interpretation of a person's mental state needs to be done in the context of their normal function and that any changes should be treated as serious. The recommendations highlight the need to be aware that changes in cognitive function can be subtle and that assessment should include history from patient and family or carers; that changes in cognitive function could present as changes in behaviour or irritability in both children and in adults with a learning disability or dementia. The Committee highlighted that the recommendation on 'Communicating and sharing information' highlights that when engaging in discussions or sharing information with people with suspected sepsis or their family or carers that the content should be tailored in terms of timing, content and delivery to the person's needs and preferences. The recommendation goes further by specifically highlighting the need to pay "particular attention to people with additional needs such as autism or learning disabilities, or people whose first language is not English". The Committee noted that making reasonable adjustments as required by the Equality Act is a statutory requirement and so this requirement would not be repeated in each individual NICE guideline.

• Gender reassignment

None

• Pregnancy and maternity

None

Race

None

• Religion or belief

None

• Sex

None

• Sexual orientation

None

• Socio-economic factors

A stakeholder (n=1) provided UK-based data highlighting the association of socioeconomic deprivation and other risk factors including being underweight or obese, the presence of severe kidney disease, the presence of liver diseases, having a learning disability, being severely frail, being housebound and recent antibiotic exposure with an increased incidence of sepsis and 30-day mortality in England. The stakeholder did not suggest that the guideline would or had the potential to impact those experiencing socioeconomic deprivation but suggests that

4.1 Have any additional potential equality issues been raised during the consultation, and, if so, how has the Committee addressed them?

more overt reference and consideration of factors associated with health inequalities such as socioeconomic status and other risk factors data should be considered in the guideline.

The Committee considered these comments and noted the importance of what had been raised which included socioeconomic deprivation. The Committee did not disagree with the study data provided but highlighted that the issue raised was broader and about the identification and consideration of those at greater risk of sepsis, and this update of NG51 covers recommendations on early non-antibiotic management in acute hospital settings. The Committee were satisfied that the recommendations updated and developed would not discriminate on the basis of socioeconomic deprivation or exacerbate existing issues as the actions within the recommendations updated are based on physiological parameters and the stakeholder point being raised was about recognising those most at risk of developing sepsis and recognising this which covers a linked but different part of the 'sepsis pathway'. The Committee highlighted that 'risk factors for sepsis' is a specific review question in scope for the next update of NG51. The Committee did not think any changes were required to the guideline as the risk factors raised are explicitly or implicitly covered in other NG51 recommendations that did not form part of this update of NG51, and that these other NG51 recommendations will be brought together with the recommendations that are the focus of this consultation to form a comprehensive guideline. The Committee outlined that the recommendation on 'When to suspect sepsis' that was out of scope for this update of NG51 and not included as part of the consultation, outlines the need to 'take into account that people with sepsis may have non-specific, non-localised presentations, for example feeling very unwell, and may not have a high temperature. The Committee outlined that, recommendations on 'managing suspected sepsis in acute hospital settings' highlighted the consideration of the presence of acute kidney injury when considering those identified as at moderate risk of severe illness or death from sepsis and the action to take. The guideline cross refers to the NICE guideline on acute kidney injury (NG148). The Committee acknowledged that whilst specific reference has not been made to other risk factors highlighted by the stakeholder for example liver disease, being underweight or obese, or to antibiotic exposure, that in the absence of any other published evidence that the frequent reference to the use of clinical judgement in the interpretation of NEWS2 scores and when assessing a person with a suspected sepsis would be sufficient.

• Other definable characteristics:

The Committee recognised stakeholder comments regarding concerns about discharging and information provision within recommendations on early nonantibiotic management for those identified as being at moderate risk and low risk severe illness or death from sepsis. Recommendations had been amended to include additional safety netting advice which were seen to help address the issue raised regarding patient information and health literacy. However, feedback from consultation indicated that it would not be usual to discharge a person at moderate or low risk of suspected sepsis. In response to stakeholder concerns regarding 4.1 Have any additional potential equality issues been raised during the consultation, and, if so, how has the Committee addressed them?

discharge, a new recommendation was developed to be implemented later in the care pathway, at the time of discharge, which signposts to the section on information that should be provided at discharge. This includes safety netting advice to ensure people seek medical attention if they experience certain symptoms that may be indicative of suspected sepsis. The changes made by the Committee were felt to address stakeholder concerns and also address the issue raised regarding patient information and health literacy.

- 4.2 If the recommendations have changed after consultation, are there any recommendations that make it more difficult in practice for a specific group to access services compared with other groups? If so, what are the barriers to, or difficulties with, access for the specific group?
- Disability

The Committee did think the items raised by stakeholders regarding the consideration of people with learning disabilities and autism were considered implicitly and explicitly within the recommendations (as specified in section 4.1 of this EIA form). However, the Committee recognised both the importance of being explicit and providing examples to emphasise the points being raised about the importance of the consideration of the needs of particular groups. This was felt to be even more important given the impact of timely identification of a suspected sepsis infection. To that end the Committee have made specific reference to 'learning disabilities' and 'autism' in the recommendations on 'When to suspect sepsis' when referring to the need to assess with extra care if people cannot give a good history. This change was not considered to make it more difficult in practice for a specific group to access services compared to other groups.

The Committee did not make any changes to the recommendations based on Age, Gender reassignment, Pregnancy and maternity, Race, Religion or belief, Sex, Sexual orientation, Socio-economic factor, or Other definable characteristics. No changes were made to the recommendations regarding age and socioeconomic factors as the Committees raised that the recommendations covered by this update of NG51 are focused on acute hospital settings where interventions are based on physiological parameters and the Committee were satisfied that the recommendations updated and developed would not discriminate on the basis of socioeconomic deprivation and age (and other factors) or exacerbate existing issues at this stage of the sepsis pathway. The Committee highlighted that the issue of risk factors for sepsis will be considered in the next planned update of NG51.

^{4.3} If the recommendations have changed after consultation, is there potential for the

recommendations to have an adverse impact on people with disabilities because of something that is a consequence of the disability?

No issues were identified. The Committee did think the items raised by stakeholders were considered implicitly and explicitly within the recommendations (as specified in section 4.1 of this EIA form); but have amended a recommendation within the recommendations on 'When to suspect sepsis' to make more specific reference to people with learning disabilities and autism in line with stakeholder comments and Committee deliberation.

4.4 If the recommendations have changed after consultation, are there any recommendations or explanations that the Committee could make to remove or alleviate barriers to, or difficulties with, access to services identified in question 4.2, or otherwise fulfil NICE's obligations to advance equality?

The Committee did think the items raised by stakeholders regarding the consideration of people with learning disabilities and autism were considered implicitly and explicitly within the recommendations (as specified in section 4.1 of this EIA form). The Committee did makes amendments to a recommendation within the recommendations on 'When to suspect sepsis' to make specific reference to 'learning disabilities' and 'autism' but these changes have sought to make more specific reference to the need for the consideration of peoples individual context when applying the recommendations. The committee did not think any further changes were required given the changes made.

4.5 Have the Committee's considerations of equality issues been described in the final guideline, and, if so, where?

This guideline is a partial update of NG51 with many of the equality issues raised by stakeholders in consultation already considered in parts of the guideline that were not part of this update and not subject to any substantive changes apart from editorial and points of clarification. The committee considerations of issues of equalities (and other issues) are generally considered in the rationale and impact section of the guideline. However, when NG51 was first developed in 2016/17 the establishment of a rationale and impact section to underpin recommendations was not a requirement under the then NICE methods and process manual and do not appear in the originally developed publication of NG51, and thus do not feature in the subsequent updates of NG51 which includes this update of NG51.

The concerns regarding age (specifically 16 to 24 year olds) and the potential to stratify risk of death and serious injury from a suspected sepsis incorrectly based on NEWS2 scores have been considered in recommendations on 'People who are most vulnerable to sepsis' recommendation on 'Interpreting findings' and the recommendation on 'evaluating risk level' as outlined in section 4.1 of this EIA. The

4.5 Have the Committee's considerations of equality issues been described in the final guideline, and, if so, where?

context section of the guideline refers to the difficulties in diagnosing sepsis with certainty given the sometimes non-specific nature of sepsis signs and symptoms and the fact that they can be missed if clinicians are not thinking 'could this be sepsis?' when presented with someone of any age. The context section recognises the importance of early recognition and treatment of sepsis in reducing avoidable deaths. It goes on to highlight that this guideline provides a framework for risk assessment, treatment, and follow-up or 'safety-netting' of people not needing immediate resuscitation, with the intention of ensuring that all people with sepsis due to any cause are recognised and initial treatment initiated before definitive treatment on other specific pathways is instituted. The context section goes on to outline that the intention for the guideline is for a healthcare professional when presented with someone of any age with a suspected infection to make 'could this be sepsis?' the first consideration; and whilst not explicitly referring to age or individual patient characteristics for example being younger and 'compensating' it is implicit. The Committee have referred to the use of clinical judgement within recommendations on 'When to suspect sepsis'; on 'Evaluating risk levels: In acute hospital settings, acute mental health settings and ambulances' and 'Managing suspected sepsis in acute hospital settings' in the interpretation of NEWS2 scores emphasising that NEWS2 should be used as a tool to support clinical decision making and not replace it, which indicates the need to consider factors such as age and compensating in decision making regarding a person with a suspected sepsis. In the rationale and impact section reference is again made to the importance of clinical judgement and the need for NEWS2 scores to be interpreted within the context of the patient's history and physical examination results which would include age and an awareness of potential compensating.

The concerns regarding people with a learning disability and autism and the potential for the detection of behaviour or altered mental state being missed when assessing an individual using NEWS2; the potential for skewing of NEWS2 scores in these populations and the interactions of socioeconomic factors with these and other factors are covered in other NG51 recommendations that did not form part of this update of NG51. Recommendations on 'When to suspect sepsis' outline the need to 'take into account that people with sepsis may have non-specific, non-localised presentations and to 'pay particular attention to concerns expressed by the person and their family or carers. The Committee recognised that providing examples of 'people with communication problems' would be useful and have made changes that refer to "learning disabilities" and "autism." The Committee highlighted that the recommendations on 'Interpreting findings' make specific reference to the need to account for 'confusion, mental state and cognitive state in suspected sepsis' and highlights that interpretation of a person's mental state needs to be done in the context of their normal function and that any changes should be treated as serious. The recommendation highlights the need to be aware that changes in cognitive function can be subtle and that assessment should include history from patient and family or carers; that changes in cognitive function could present as changes in behaviour or irritability in both children and in adults with a learning disability or dementia. The context section of the guideline refers to the difficulties in diagnosing

4.5 Have the Committee's considerations of equality issues been described in the final guideline, and, if so, where?

sepsis with certainty given the sometimes non-specific nature of sepsis signs and symptoms and the fact that they can be missed if clinicians are not thinking 'could this be sepsis?' when presented with someone of any age. The context section recognises the importance of early recognition and treatment of sepsis in reducing avoidable deaths. It goes on to highlight that this guideline provides a framework for risk assessment, treatment, and follow-up or 'safety-netting' of people not needing immediate resuscitation, with the intention of ensuring that all people with sepsis due to any cause are recognised and initial treatment initiated before definitive treatment on other specific pathways is initiated. The context section goes on to outline that the intention for the guideline is for a healthcare professional when presented with someone of any age with a suspected infection to make 'could this be sepsis?' the first consideration. Whilst not explicitly referring to learning disabilities, autism, or the broader issue of the consideration of individual patient characteristics that may warrant additional consideration for example having a learning disability or autism in the context section it is implicit. The Committee have referred to the use of clinical judgement within recommendations on 'When to suspect sepsis'; on 'Evaluating risk levels: In acute hospital settings, acute mental health settings and ambulances' and 'Managing suspected sepsis in acute hospital settings' in the interpretation of NEWS2 scores emphasising that NEWS2 should be used as a tool to support clinical decision making and not replace it, which indicates the need to consider these factors such as learning disability or autism in decision making regarding a person with a suspected sepsis. In the rationale and impact section reference is again made to the importance of clinical judgement and the need for NEWS2 scores to be interpreted within the context of the patient's history and physical examination results which would include the consideration of learning disability or autism. Recommendation on 'Communicating and sharing information' highlights that when engaging in discussions or sharing information with people with suspected sepsis or their family or carers that the content should be tailored in terms of timing, content and delivery to the person's needs and preferences. The recommendation goes further by specifically highlighting the need to pay "particular attention to people with additional needs such as autism or learning disabilities, or people whose first language is not English." The Committee noted that making reasonable adjustments as required by the Equality Act is a statutory requirement and so this requirement would not need to be repeated in each individual NICE guideline.

The issue of the association of socioeconomic deprivation and other risk factors with an increased incidence of sepsis and 30-day mortality in England was highlighted but not raised as a concern by a stakeholder. The Committee did not disagree with the stakeholder comment (and data) raised but felt that it was about the identification and consideration of those at greater risk of sepsis more broadly, and this update of NG51 covers non-antibiotic management recommendations in acute hospital settings. The Committee were satisfied that the recommendations updated and developed would not discriminate on the basis of socioeconomic deprivation or exacerbate existing issues as the actions within the recommendations updated are based on physiological parameters and the stakeholder point being raised was about recognising those most at risk of developing sepsis and recognising this which 4.5 Have the Committee's considerations of equality issues been described in the final guideline, and, if so, where?

covers a linked but different part of the 'sepsis pathway'. The Committee highlighted that 'risk factors for sepsis' is a specific review question in scope for the next update of NG51 where the issue raised would be explored in greater detail

Updated by Developer: James Jagroo

Date: 12/01/2024

Approved by NICE quality assurance lead _____Victoria Axe

Date____30/01/24_____