The Development and Introduction of a National e-learning Programme and National Vital Observation Chart to Support the Dissemination of a National Early Warning Score (NEWS) (UK)

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On Behalf of the

RCP NEWS Education Sub-Group
No conflicts of interest to declare

Treasurer & Member of iSRRS
Advisory Board
Member of NOrF Executive Board
What I will talk about

- The UK National Early Warning Score (NEWS)
- Development of a National e-learning programme & National Observation Chart
- The value of standardisation
- Results to date
- Future developments
NEWS UK: A **simple** scoring system in which a score is allocated to physiological measurements already undertaken when patients present to, or are being monitored in hospital = **minimum**

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**National Early Warning Score (NEWS)**

Standardising the assessment of acute-illness severity in the NHS

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**National Early Warning Score (NEWS)**

<table>
<thead>
<tr>
<th>PHYSIOLOGICAL PARAMETERS</th>
<th>3</th>
<th>2</th>
<th>1</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Respiration Rate</td>
<td>≤8</td>
<td>9 - 11</td>
<td>12 - 20</td>
<td>21 - 24</td>
<td>≥25</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oxygen Saturations</td>
<td>≤91</td>
<td>92 - 93</td>
<td>94 - 95</td>
<td>≥96</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Any Supplemental Oxygen</td>
<td>Yes</td>
<td>No</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Temperature</td>
<td>≤35.0</td>
<td>35.1 - 36.0</td>
<td>36.1 - 38.0</td>
<td>38.1 - 39.0</td>
<td>≥39.1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Systolic BP</td>
<td>≤90</td>
<td>91 - 100</td>
<td>101 - 110</td>
<td>111 - 219</td>
<td>≥220</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Heart Rate</td>
<td>≤40</td>
<td>41 - 50</td>
<td>51 - 90</td>
<td>91 - 110</td>
<td>111 - 130</td>
<td>≥131</td>
<td></td>
</tr>
<tr>
<td>Level of Consciousness</td>
<td>A</td>
<td></td>
<td></td>
<td></td>
<td>V, P, or U</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*The NEWS initiative was led by the Royal College of Physicians' NEWS Development and Implementation Group (NEWSDIG) report, and was jointly developed and launched in collaboration with the Royal College of Physicians, Royal College of Nursing, National Clinical Directors and NHS England for implementation.*

‘Standardisation – everybody is speaking the same language’
A greater ability to discriminate patients at risk. (Smith et al 2013)

+/- 75% England & NI, 100 % in Wales
### NEWS (UK)

<table>
<thead>
<tr>
<th>NEWS UK SITE</th>
<th>NAME:</th>
<th>D.O.B.</th>
<th>ADMISSION DATE:</th>
</tr>
</thead>
<tbody>
<tr>
<td>DATE</td>
<td>TIME</td>
<td>DATE</td>
<td>TIME</td>
</tr>
<tr>
<td>RSP. RATE</td>
<td>1-2</td>
<td>1-5</td>
<td>1-2</td>
</tr>
<tr>
<td>2-3</td>
<td>1-2</td>
<td>1-5</td>
<td>1-2</td>
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<tr>
<td>3-4</td>
<td>1-5</td>
<td>1-2</td>
<td>1-2</td>
</tr>
<tr>
<td>4-5</td>
<td>1</td>
<td>1-2</td>
<td>1-2</td>
</tr>
<tr>
<td>SpO₂</td>
<td>1</td>
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<td>1-2</td>
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<tr>
<td>2-3</td>
<td>1-2</td>
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<td>1-2</td>
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<tr>
<td>3-4</td>
<td>1-2</td>
<td>1-2</td>
<td>1-2</td>
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<tr>
<td>TEMP</td>
<td>1-2</td>
<td>1-2</td>
<td>1-2</td>
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<tr>
<td>2-3</td>
<td>1-2</td>
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<tr>
<td>3-4</td>
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<tr>
<td>4-5</td>
<td>1-2</td>
<td>1-2</td>
<td>1-2</td>
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<tr>
<td>BLOOD PRESSURE</td>
<td>1-2</td>
<td>1-2</td>
<td>1-2</td>
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<tr>
<td>2-3</td>
<td>1-2</td>
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<tr>
<td>4-5</td>
<td>1-2</td>
<td>1-2</td>
<td>1-2</td>
</tr>
<tr>
<td>HEART RATE</td>
<td>1-2</td>
<td>1-2</td>
<td>1-2</td>
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<tr>
<td>2-3</td>
<td>1-2</td>
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<td>3-4</td>
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<td>1-2</td>
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<tr>
<td>4-5</td>
<td>1-2</td>
<td>1-2</td>
<td>1-2</td>
</tr>
<tr>
<td>Levels of Consciousness</td>
<td>Alert</td>
<td>Alert</td>
<td></td>
</tr>
<tr>
<td>V7 / V7 U</td>
<td>Alert</td>
<td>Alert</td>
<td></td>
</tr>
<tr>
<td>Blood Sugar</td>
<td>Blood Sugar</td>
<td>Blood Sugar</td>
<td></td>
</tr>
<tr>
<td>TOTAL NEWS Score</td>
<td>TOTAL SCORE</td>
<td>TOTAL SCORE</td>
<td></td>
</tr>
</tbody>
</table>

#### Chart 4: Clinical response to NEWS triggers

<table>
<thead>
<tr>
<th>NEWS SCORE</th>
<th>FREQUENCY OF MONITORING</th>
<th>CLINICAL RESPONSE</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Minimum 12 hourly</td>
<td>Continue routine NEWS monitoring with every set of observations</td>
</tr>
<tr>
<td>1-4</td>
<td>Minimum 48 hourly</td>
<td>Inform registered nurse who must assess the patient; Registered nurse to decide if increased frequency of monitoring and/or escalation of clinical care is required;</td>
</tr>
<tr>
<td>5 or more</td>
<td>Increased frequency to a minimum of 1 hourly</td>
<td>Registered nurse to urgently inform the medical team caring for the patient; Urgent assessment by a clinician with core competencies to assess acutely ill patients; Clinical care in an environment with monitoring facilities;</td>
</tr>
<tr>
<td>7 or more</td>
<td>Continuous monitoring of vital signs</td>
<td>Registered nurse to immediately inform the medical team caring for the patient—this should be at least at Specialist Registrar level; Emergency assessment by a clinical team with critical care competencies, which also includes a practitioner with advanced airway skills; Consider transfer of Clinical care to a level 2 or 3 care facility, i.e., higher dependency of ITU;</td>
</tr>
</tbody>
</table>

National Early Warning Score - July 2012
Objective

• To develop a national standardised NEWS chart and a free web-based e-learning programme, to support the dissemination and learning for all staff in the use of the NEWS observation chart and scoring system.

• V4 includes case studies for all clinical settings:

Ambulance, Acute, Community, Primary Care, Mental Health
Methods

- A small multi-professional subgroup of experts was commissioned to design a NEWS observation chart and develop the NEWS e-learning programme.
- Certification of achievement was integral to the programme.
- The NEWS e-learning module was developed through iterative instructional design and collaboration between the multi-professional subgroup, educational technologists and end-users.
- The e-learning was created in both HTML 5 and Flash formats to ensure compatibility with NHS systems and then distributed through a dedicated, standalone learning management system.
- The final iterations were publicised widely by the sub-group members and their constituent professional bodies and organisations to encourage uptake.
Welcome to the National Early Warning Score (NEWS) online training resource.

This website provides an opportunity to learn about the implementation and use of the new National Early Warning Score system which is now being introduced across the NHS.

Here you will be able to access online training in how to fill in the forms and effectively operate the new National Early Warning Score System. Here you will find downloadable forms and information notices as well as a facility to print out a personal certificate showing that you have successfully completed the training.

Please note that NEWS is designed for use in adults aged 16 years and above. NEWS is not recommended for use in children or during pregnancy.

Account
Logged in as: 
test test
To start your learning please click the learning panel below. Once you have completed the learning you will be able to download a personalised certificate.

Learning
Start the online course and track your progress as you go.

Certificate
Print off your certificate here once you have completed the course.

Resources
NEWS Score
NEWS Observation Chart
NEWS Clinical Response Triggers
Description and Learning Objectives

Session description

This e-learning session provides an overview of the National Early Warning Score (NEWS): The standardisation of assessment of acute illness severity.

NEWS provides a systematic method to measure simple physiological parameters in all patients aged 16 and above.

Learning objectives

- Describe the benefits of the National Early Warning Score (NEWS)
- List two main ways in which NEWS is to be used
- Know the Six Physiological Parameters included in the NEWS
- Outline how the NEWS works
- Describe the NEWS system, threshold and triggers
- Demonstrate correct use of the NEWS and its clinical response
Observations - Level of Consciousness

Level of consciousness is an important indicator of acute illness severity. We recommend the use of the already widely used **AVPU scale** which assesses four possible outcomes (Alert, Voice, Pain, Unresponsive) to measure and record a patient's level of consciousness. The assessment is done in sequence and only one outcome is recorded. For example, if the patient responds to voice, it is not necessary to assess the response to pain. **Click on each of the boxes to reveal more information.**

**New Onset Confusion:**
As indicated above, a patient may be confused by alert. Thus, assessment of confusion does not form part of the AVPU assessment.

Nevertheless, new onset or worsening confusion should always prompt concern about potentially serious underlying causes and warrants urgent clinical evaluation.

- **A** The patient is awake
- **V** The patient responds to verbal stimulation
- **P** The patient responds to painful stimulation
- **U** The patient is completely unresponsive

**Alert** - A fully awake (although not necessarily orientated) patient. Such a patient will have spontaneous opening of the eyes, will respond to voice (although may be confused) and will have motor function.
The NEWS Observation Chart

Here is a shortened example of a NEWS chart. A patient's six physiological measurements are taken and recorded on this chart and the score added together.

A full version of the chart can be seen clicking this link.

A graded clinical response will be determined by the total score. This will be covered in the next section.

For now click on the chart to right and add a new entry for each of the three observations displayed to see how the scores are added together.

We recommend that you write on the chart the actual readings for any observations with a score of 3 (red).
NEWS: Ambulance Care

Check Your Knowledge

The clinical response table shown to the right has had the scores removed from it. You will now be presented with three NEWS for three different patients.

Can you assign the correct score to the correct clinical response? 
Please drag and drop the NEWS below to the corresponding clinical response.

2
- A: Determine management plan in line with scope of practice, national guidelines and/or local policies and procedures.

5
- B: Decide if you require further clinical assistance i.e. Paramedic or Senior Clinical Staff
- Determine management plan in line with scope of practice, national guidelines and/or local policies and procedures.
- Consider using Sepsis screening tool.

7
- C: Decide if you require further clinical assistance i.e. Paramedic or Senior Clinical Staff
- Determine management plan in line with scope of practice, national guidelines and/or local policies and procedures.
- Where required undertake rapid transfer to appropriate acute hospital with patient consent.
- Consider using Sepsis screening tool.
- Consider pre-alert to receiving unit.

If a management plan is not in place, a NEWS of 2 would result in this clinical response indicated above. With such a response the frequency of monitoring should be increased to 4 hourly.

If a management plan is not in place, a NEWS of 5 would result in this clinical response
Case Study 1

Case 1 is a 24 year old female with severe difficulty in breathing, unresponsive to patient's own medication. Patient has a history of asthma, drug history is Salbutamol inhaler.

Airway is clear, however the patient has an audible wheeze, working hard to breathe with use of accessory muscles and only able to manage one word answers to questions. Radical pulses present but tachy, patient is GCS 15.

The observations shown to the right are reported. Using the NEWS scorecard (click this link to view it) what is the NEWS for this patient?

Please select a number below the observations and then click confirm.
Results to date: 01 05 2017

141,270 learners, 109,297 complete = completion rate 77%
Credentialing

Certificate of Completion

Awarded to:

Lesley Durham

For the satisfactory completion of

Acute Care

With a score of 100% on 23rd April 2017

Ref: 4e1a55973d
Conclusion

• The phenomenal uptake of the free e-learning programme reinforces the view that this initiative has strongly supported the dissemination and learning for all staff in the use of the NEWS observation charts and scoring system in the UK.

• Key to its success is the relevant case-based content; free and easy web-based access and instant certification of successful completion, aligned to an iterative design model.

• The greatly improved Version 4 is now available and includes case studies for primary, community, mental health and pre-hospital care.
Next Steps

NEWS Update 1

National Early Warning Score (NEWS)
Standardising the assessment of acute-illness severity in the NHS

THE NATIONAL EARLY WARNING SCORE - NEWS
NEWS update 1

Supportive App

Select area of practice:
- Ambulance Care
- Acute Care
- Community Care
- Mental Health
- Primary Care

Low Clinical Risk
- NEWS Score: 2
- Monitoring Frequency: Weekly
- Clinical Response / Action: 2

Medium Clinical Risk
- NEWS Score: 6
- Monitoring Frequency: Daily
- Clinical Response / Action: 4

High Clinical Risk
- NEWS Score: 9
- Monitoring Frequency: Continuous
- Clinical Response / Action: 6

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Acknowledgements

• Nic Blackwell – OCB Media
• Rachel Binks – Royal College of Nursing
• Derek Bell- RCP, NIHR CLAHRC (NW London)
• Maire Smith - TFI
• Bryan Williams – RCP, Chair NEWS Development & Review Group
Thank you for listening 😊

http://tfinews.ocbmedia.com

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