National Early Warning Score (NEWS2)
For adult patients

NEWS2 should not be used in children (aged <16 years) or in pregnant women in obstetric / maternity areas
Background

- National Early Warning Score (NEWS) was created to standardise the process of recording, scoring and responding to changes in routinely measured physiological parameters (Royal College Physicians, 2012).

- NUH have been using a modified Early Warning Scoring system since 2001 and not the first iteration of NEWS.

- RCP launched a second iteration to its NEWS algorithm in December 2017 - now known as NEWS2\(^1\).

- Formal endorsement by NHS England and NHS Improvement to become the single Track and trigger system for acute care providers (NHSE, 2018 and NHSi, 2018).

- Adoption of NEWS2 has been mandated by publication of an NHS safety alert requiring acute trusts to have a plan in place to adopt NEWS2 Trust-wide by March 2019\(^2\).

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Key Changes from EWS to NEWS2

• Red Score - 3 in one parameter

• NEWS2 of 5 – consider, could this be sepsis

• Two SpO2 scales

• AVPU to ACVPU

• Different escalation and de-escalation

• Urine output is not scored as part of NEWS2 (but will remain an observation on Nervecentre)

NEWS2 should be used as an aid to clinical assessment – it is not a substitute for competent clinical judgement. Any concern about a patient’s clinical condition should prompt an urgent clinical review, irrespective of the NEWS.
Message 1 – Two different ranges for target saturations

Scale 1 – For use on patients with normal target oxygen saturations 94% to 98%

Scale 2 - Patients confirmed to have hypercapnic respiratory failure on either a prior or their current hospital admission should have:
- A prescribed oxygen saturation of 88-92%
- Dedicated Sp02 scoring scale. Scale 2 on NEWS2 chart should be used

All patients to be placed on Scale 1 unless clearly documented by Doctors, CCOT or ACPs that scale 2 should be used.
Recording of patient’s Oxygen Saturations if Hypercapnia model is selected

• Click on “Sats SpO2” (see options in picture)
• Select the appropriate range for the patient’s recorded sats.

These are NOT the target saturations, but what is measured on the patient when recording observations

Note: when you click on the “O2 Sats Value” you need to type in the actual number of the sats recording.
Inputting $O_2$ Saturations for a patient on the hypercapnia (Scale 2) model

Two entries need to be made.

Selecting “Sats SpO2” will display this screen.

Select the appropriate range for the patient’s recorded sats.

NB: this is NOT the target range

Example:
For a patient with $O_2$ sats recording of 90% on air, you would select the range “88-100 on Air”

Selecting “$O_2$ sats value” will display this screen.

Enter actual (numerical) $O_2$ sats value here.

Example:
For a patient with $O_2$ sats recording of 90%, you would enter 90.
Message 2 - ACVPU and Urine output

- AVPU is now ACVPU to include ‘New confusion. All score 3 except ‘A’ (Alert) = 0

- Urine is not included on NEWS2 scoring, however, there will still be separate alerts for patients with low urine output
Urine Output

This is not included in NEWS2 scoring, however, there will still be alerts for patients with low urine output.

Low urine output...  
... will result in alert message

Commence fluid balance chart, perform bladder scan, alert medical staff, and consider catheterisation.

OK
**Trigger scores and Escalation are different from EWS**

<table>
<thead>
<tr>
<th>NEWS2 Score</th>
<th>Default Escalation (can swipe off)</th>
<th>Optional Escalation (can swipe on)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 to 4</td>
<td></td>
<td>Nurse in Charge</td>
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<td></td>
<td></td>
<td>CCOT</td>
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<td></td>
<td></td>
<td>Doctor</td>
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<td></td>
<td></td>
<td>Registrar</td>
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<td></td>
<td></td>
<td>Consultant</td>
</tr>
<tr>
<td>5 to 6</td>
<td>Nurse in Charge</td>
<td>CCOT</td>
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<tr>
<td></td>
<td>Doctor</td>
<td>Registrar</td>
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<tr>
<td></td>
<td>Consultant</td>
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<tr>
<td>7 or above</td>
<td>Nurse in Charge</td>
<td>Consultant</td>
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<td></td>
<td>CCOT</td>
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<td></td>
<td>Doctor</td>
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<td></td>
<td>Registrar</td>
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<tr>
<td>3 in any single parameter</td>
<td>Nurse in Charge</td>
<td>CCOT</td>
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<tr>
<td></td>
<td>Doctor</td>
<td>Registrar</td>
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<td>Consultant</td>
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</tbody>
</table>

NB: Out of Hours the Doctor escalation is replaced by H@N for appropriate wards.
Consultants and SpRs should proactively assess and alter the following circumstances for each patient:

- Set escalation thresholds and document in notes and on Nervecentre
- Set ‘ward-based care’ if appropriate and reduce frequency of observations

MDT to consider escalation of care decisions for all deteriorating patients in ward areas
Escalation and de-escalation

If Nurses or Junior doctors have lots of jobs pending consider the following:

- Liaise with H@N and senior medical colleagues (Med SpR / Surgical SpR) to help prioritise reviews

- Ensure once a patient has been seen ensure job is ‘closed’ or set to ‘pending’ with a note as to why job has been left open

If no response from clinician following escalation on nervecentre, please follow up with a phone call
Identifying Sepsis at the earliest possible stage

• The importance of considering serious sepsis in patients with known or suspected infection, or at risk of infection, is emphasised.

• A NEWS2 score of 5 or more is the key trigger threshold for consideration.

• If you think deterioration could be due to infection - combine A-E assessment with clinical judgement to decide on sepsis bundle implementation.
NEWS 2 paper chart – key updates

- Recording of physiological parameters has been ordered to align with The Resuscitation Council (UK) (2019) ABCDE sequence

- The chart has a dedicated section (Sp02 scale) for use in patients with hypercapnic respiratory failure (usually due to COPD) who have a clinically recommended oxygen saturation of 88-92%

- The section of the chart for recording the rate of oxygen flow (L/min) and method/device for supplemental oxygen delivery has been improved.

- The chart has a new colour scheme, reflecting the fact that the original red–amber–green colours were not ideal for staff with red/green colour blindness.
Training and competency assessment

• All relevant NEW clinical staff to complete the online Royal College of Physicians e-learning education package within three months of starting at NUH
• Agency staff to complete e-learning
• All NHSP staff will be completing on-line training
• All new Registered and non-registered nursing staff to be assessed as competent using eObs and paper NEWS2 chart within three months of joining the organisation.
• All current relevant clinical staff are expected to do the NUH training

Please remember to use accurate patient assessment and clinical judgement when considering escalation using NEWS2
NEWS2: Key Messages for Medical Staff

1. Remember to set the appropriate ‘Special Circumstance’ model to prevent over-escalation and ensure patients are on the right observation chart. (Patients with chronic respiratory disease at risk of hypercapnic respiratory failure are scored differently)

2. Write a clear plan of action in medical notes & communicate this to nursing staff / update eHandover to give them the confidence not to escalate multiple times if the patient’s condition is improving.

3. NEWS2 will generate increased escalations as the tool is more sensitive & triggers earlier. Selecting the correct special circumstance model & having a clear medical plan will help to manage this.

4. Ensure doctors including registrars are logged into Nervecentre at all times when on shift and have chosen the correct patient list (“Set as my patients”) to receive escalation alerts.

5. Consider Sepsis during review at NEWS2 score of 5 or more
References


• RCP Training - https://www.rcplondon.ac.uk/projects/outputs/national-early-warning-score-news-2