

INTRODUCING HEWS – HDU Escalation Warning System

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SITUATION

- Medical HDU within Acute Medicine Directorate
- No unit based medical staff or “gatekeeper”
- Minimal anaesthetic input
- >85% activity
- Accepts patients from 18 different medical teams!



STRENGTHS

- Highly trained nursing staff
- Good use of evidence based protocols & guidelines
- Recently upgraded facility with good range of equipment

WEAKNESSES

- High activity – a lot of which is out of hours
- Only 2 senior medics and 1 ANP on H@N Team for all medical patients
- Only area in hospital that provides BiPAP

BACKGROUND

- HSMR identified Crosshouse Hospital as “outlier” (June 2009)
- No HDU mortality info available for comparison
- Are we as good as we think we are?

ASSESSMENT

- Extensive literature review
- Casenote review
- Staff experiences explored
- SICS Audit Data studied

ASSESSMENT

- Set up working group
- Identified “champions” amongst nursing & medical staff
- Involved Clinical Improvement staff
- Developed “score” & agreed “achievable” responses

SCORE	0	1	2	3
A	Secure	Protected		Threatened
B	Spo2 >90% on low flow O2/ABGs normal Stable on NHF/NIV ABGs improving	Spo2<94% on NHF Remains hypoxic Rising RR Evidence of rising WOB Acidotic/CO2 rise	NIV – ABGs not improving despite high IPAP ABGs – still acidotic with low PO2 & high CO2	ABGs worsening on maximum respiratory support available in HDU
C	Haemodynamically Stable	New arrhythmia or ST >120 with no BP compromise BP systolic 80-100, responding to fluid/drug therapy CVP 0-10mmHg	Arrhythmia or ST > 120 with drop in BP BP labile – no response to fluid CVP >10mmHg	Continuing arrhythmias BP < 80 systolic despite fluid resus Inotropes in use
D	GCS 15	GCS 10 -14 with known cause	GCS 10 – 14 with unknown cause	GCS<9 or sudden drop in GCS of 2 or more points
UO	>30ml/hr	<30ml/hr with hypotension and/or ARF/CKD	<30ml/hr with good BP and no known renal problems	Anuric

SCORE	RESPONSE
1 – 3	<ul style="list-style-type: none">▪ Immediate HDU nurse assessment – consider increasing respiratory support▪ SHO review within 1 hour▪ Review/Escalation of current management plan
3 – 6 <u>Or</u> Single Score of 3 in any 1 category	<ul style="list-style-type: none">▪ Immediate SHO review▪ Escalation of current management▪ Inform patient/receiving consultant if no change in 30mins▪ ICU advice
>6	<ul style="list-style-type: none">▪ Immediate SpR Review▪ Consultant Review/Opinion▪ ICU referral

IMPORTANT POINTS TO CONSIDER

- Is escalation of therapy indicated – if YES, do not delay
- Is patient receiving ceiling therapy and not for further escalation – if yes, DISCONTINUE HEWS SCORING
- Would patient be a candidate for ICU? Early referral
- Is patient a potential candidate for IPPV? DO not delay transfer with NIV
- DNACPR status does NOT affect HEWS response if active management still being provided

ASSESSMENT

- Using quality improvement methods, commenced small tests of change using PDCA cycle



ASSESSMENT

- 6 month pilot study
- Every patient in HDU scored and data input to HEWS audit database
- HEWS added to medical education/induction
- Staff feedback sought – medical and nursing

RESULTS

- Increased staff & patient satisfaction
- Improved relationship with our ICU colleagues
- Increased ICU referrals but decreased ICU transfers
- Improved out of hour response
- Reduction in unit mortality over 5 year period – 2.5%

RECOMMENDATIONS

- Spreading to Ayr Hospital Medical High Care Unit
- Adapting for use in Surgical HDU
- Adopted by SPSP for HDU work stream
- Share with all our HDU colleagues

THANK YOU FOR LISTENING

ANY QUESTIONS?

CONTACT DETAILS

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