Dấu hiệu dọa ngưng tim

PGS Nguyễn Thị Thanh
Cố vấn Bộ môn GMHS
TĐHYK Phạm Ngọc Thạch
ĐHYD TP.HCM

Bảng 20.1: Các dấu hiệu sớm & muộn của chuyển biến xấu cấp tính của BN tại Bv

Dấu hiệu sớm	Dấu hiệu muộn
Tắc đường thở 1 phần	Tắc đường thở hoàn toàn
SpO2 90-95%	SpO2 < 90%
Tần số thở 20-30 lần/phút	Tần số thở > 30 lần/phút
Tụt huyết áp nhẹ	Tụt huyết áp nặng (HA Tthu < 80 mmHg)
Lượng nước tiểu <0,5 ml/kg/giờ	Vô niệu
Lẫn lộn/vật vã kích thích	Không đáp ứng khi gọi hoặc kích thích đau
Kiềm thiếu -5 đến -8	Kiềm thiếu < -8
pH 7,2- 7,3	pH< 7,2
Lactate 0 – 4 mmol/L	Lactate > 4 mmol/L

Các dấu hiệu cảnh báo sớm của BN nặng cấp tính

Dấu hiệu	**Mức độ**
Tần số tim	<40 hoặc > 140 nhịp/phút
Huyết áp tâm thu	< 90 hoặc > 200 mmHg
Huyết áp tâm trương	<50 hoặc > 110 mmHg
Tưới máu mô giảm	↑ Thời gian hoàn màu mao mạch, ↘ nhiệt độ da ở ngoại vi
Vô niệu	Do HATB giảm nhanh
Giảm điểm Glasgow	Do HATB giảm nhanh

Các dấu hiệu cảnh báo sớm

- Thở ngáp, ngưng thở ngắn
- Da, môi, niêm mạc tím
- ECG: ngưng nhịp xoang, nhịp tim chậm hoặc cơn nhịp nhanh > 150 lần/phút hoặc QRS dãn rộng
- Chướng bụng

Modified early warning score (MEWS)

NHS Early Warning Score (NEWS)

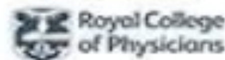
PHYSIOLOGICAL PARAMETERS	3	2	1	0	1	2	3
Pulse	≤40		41 - 50	51 - 90	91 - 110	111 - 130	≥131
Temperature	≤35.0		35.1 - 36.0	36.1 - 38.0	38.1 - 39.0	≥39.1	
Systolic BP	≤90	91 - 100	91 - 110	111 - 219			≥220
Respiration Rate	≤8		9 - 11	12 - 20		21 - 24	≥25
Consciousness Level				A			V, P, or U
Oxygen Saturations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

NEWS SCORING SYSTEM

National Early Warning Score (NEWS)*

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

Please see next page for explanatory text about the chart



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MEWS (Modified Early Warning Score) Alarmsignalen bij vitaal bedreigde patiënt

	Score	3	2	1	0	1	2	3
A	SpO2	≤ 85	85-89	90-94	≥ 95			
B	Ademfrequentie		≤ 9		9-14	15-20	21-29	≥ 30
C	Hartfrequentie		≤ 40	41-50	51-100	101-110	110-129	≥ 130
C	Systolische bloeddruk	≤ 70	71 - 80	81-100	101-180	181-200	201-219	≥ 220
C	Diurese	0 check CAD	< 20ml/hr	< 35ml/hr		> 200ml/hr		
D	Bewustzijn			agitatie	A	V	P	U
E	Temperatuur		< 35	35,1-36,0	36,1-37,3	37,4-38,4	≥ 38,5	

Minimale controle MEWS 1x per 8 uur.

MEWS 3 : **overleg met een collega verpleegkundige, controle met MEWS à 8 uur**

MEWS 4, 5 : **overleg met zaalarts < 30 min.** Deze informeert zonodig supervisor/SIT en maakt beleid **controle MEWS à 4 uur**

MEWS 6 of meer : **overleg met zaalarts < 10 min**. Deze informeert zonodig het SIT, controle MEWS à 1 uur. Overweeg continue monitoring

Geef extra punten bij: ongerust +1, urine produktie < 75ml/4uur +1, saturatie < 90 ondanks therapie +3

Bewustzijn: A = Alert V = reactie op aanspreken P = reactie op pijn U = geen reactie

SIT (SPOED INTERVENTIE TEAM) sein: 4640 ODIN protocol 004916 **Maastricht UMC+**

Flow Chart for Escalation and Notification Based Upon Modified Early Warning Score (MEWS)

Green 0 – 1

- No Intervention
- Nursing Assistant continues routine assessments

Yellow 2 – 4

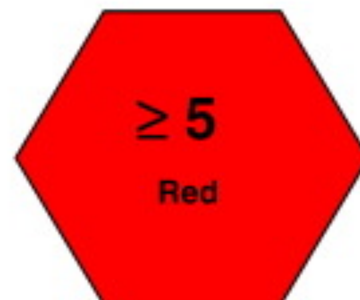
- Nursing Assistant notifies Nurse
- If unstable, notify Rapid Response Team
- If new deterioration, nurse assesses and treats patient, review concerns and recheck MEWS
- Notify physician
- Check MEWS every hour for the next 4 hours or as ordered
- Consider patient acuity

Orange 5 – 6

- Nursing Assistant notifies Nurse immediately
- If unstable, notify Rapid Response Team
- Nurse evaluates patient
- Nurse notifies physician as per evaluation & orders
- Recheck vital signs and MEWS every 30 minutes x2 and every hour x4 hours
- Reassess as per orders

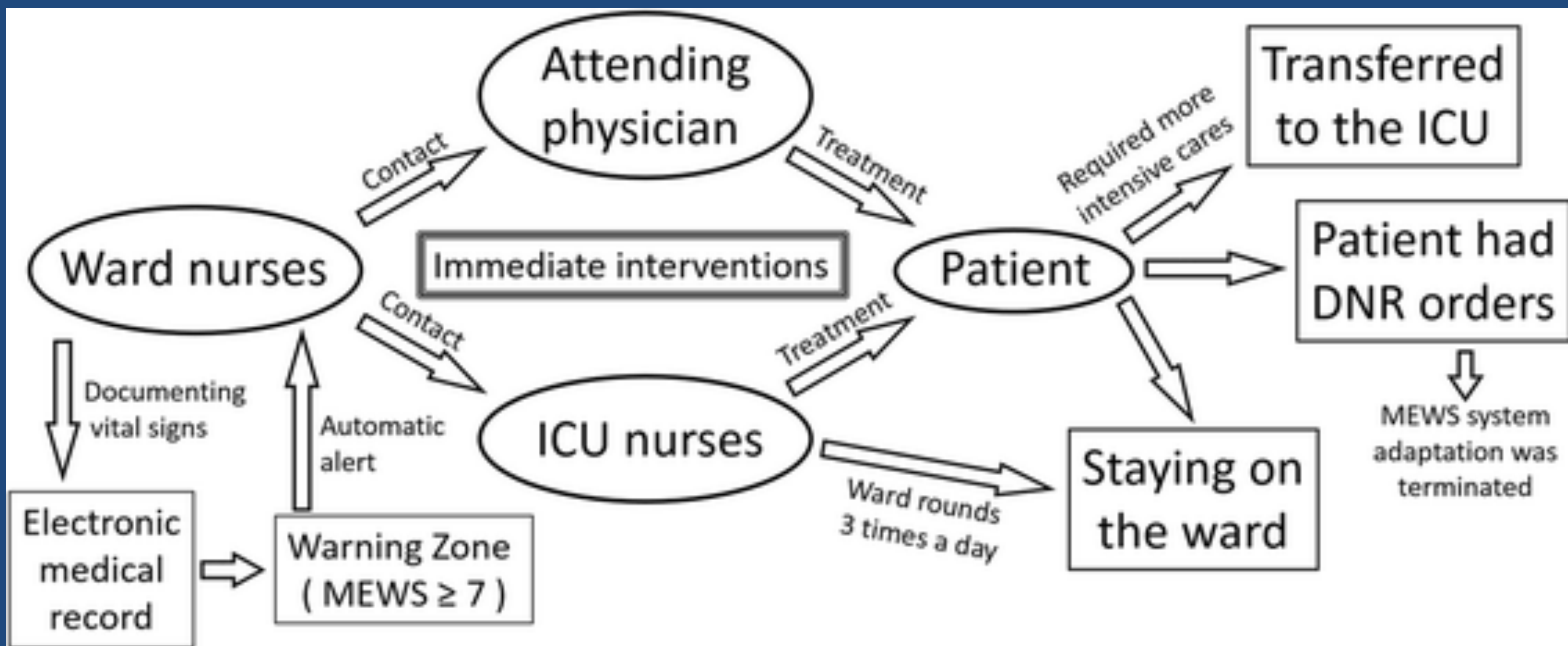
Red 7+

- Nurse or Nursing Assistant calls for Rapid Response Team
- Notify physician
- Crash cart moved to patient room
- Stay with patient until Rapid Response Team arrives
- Nurse places defibrillator pads on patient and connects to defibrillator
- Assess and treat patient as per orders
- Consider transfer / elevation of care
- Vital signs / MEWS as per Rapid Response Team

 	 	
• Continue routine assessments	• Increase frequency of vital signes /CHEWS assessments • Notify charge nurse, physician, nurse practitioner or physician assistant • Discuss treatment plan with team • Consider higher level of care • Document interventions *Consider:* Intensive Care Unit Evaluation (page "EVAL," 3825)	• Physician, nurse practitioner or physician assistant evaluation at bedside • **Notify attending physician** • Discuss treatment plan with team • Document interventions *Consider:* Activating an Intensive Care Unit STAT (Rapid Response Team)

*** ICU STAT/CODE BLUE CAN BE ACTIVATED AT ANYTIME BY ANYONE***

Use SBAR communication


Attending physician
Contact
Treatment
Required more intensive cares
Transferred to the ICU
Ward nurses
Immediate interventions
Patient
Patient had DNR orders
Contact
Treatment
Documenting vital signs
Automatic alert
ICU nurses
MEWS system adaptation was terminated
Staying on the ward
Ward rounds 3 times a day
Electronic medical record
Warning Zone (MEWS ≥ 7)