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Covid-19 and recognising the deteriorating patient

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Aim of session

Understand what COVID 19 is and who is at most risk.

Recognise signs & symptoms of COVID19

Recognise and treat the deteriorating patient using a structured ABCDE approach

Recognise when a patient needs to be transferred to acute trust for more specialist care

What is COVID 19

COVID 19 is a new illness that can affect your lungs and airways. It's caused by a type of coronavirus for which there is currently no treatment.

SIGNS & SYMPTOMS

- **Raised temperature**
- **Cough**
- **Shortness of breath**

Who is at most risk?

Over 70's and;

under 70 with an underlying health condition such as:

- chronic (long-term) respiratory diseases, such as asthma, COPD, emphysema or bronchitis
- chronic heart disease such as heart failure chronic kidney disease
- chronic liver disease, such as hepatitis
- chronic neurological conditions, such as Parkinson's disease motor neuron disease, multiple sclerosis
- People with a learning disability or cerebral palsy

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at risk patients continued….

- Diabetes
- Sickle cell disease or someone who has had their spleen removed
- Someone with a weakened immune system as the result of conditions such as HIV and Aids
- or medicines such as steroid tablets,
- chemotherapy or other immuno-suppressants for example Methotrexate
- BMI of 40 or above
- Pregnant women
- Smokers

How to recognise a patient is deteriorating.

- How do they look?
- How do they tell you they feel?
- Look for non verbal signs too – has their behaviour changed?
- What is their MEWS? has it altered from their baseline?

LYPFT - Modified Early Warning Score (MEWS)

Complete patient physical observations & calculate MEWS Score - Act according to instructions below and record

	3	2	1	0	1	2	3
Conscious Level (AVPU)	U unresponsive	P responds to pain	V responds to voice	A alert	drowsy new confusion	-	-
Respiratory Rate	Less than 9	9 - 10	-	11 - 20	21 - 25	26 - 35	More than 35
Oxygen Saturation SpO_2	-	Less than 95%	95- 98%	More than 98%	-	-	-
Capillary Refill Time	More than 5	5	2 - 4	Less than 2 secs	-	-	-
Heart Rate (pulse)	Less than 40	40 - 49	50 - 59	60 - 90	91 - 110	111-160	More than 160
Systolic Blood Pressure	Less than 70	70 - 90	-	91 - 160	-	-	-
Temperature	-	Less than 35	35 – 35.9	36 - 37	37.1 – 38.4	More than 38.4	-
Staff Concerns	-	2	-	-	-	2	-
*Blood Glucose must be obtained when AVPU is P, U or new confusion **			*Less than 4 mmols*	*4 – 7.7 mmols*	*7.8 -11 mmols*	*11-30 mmols*	*More than 30 mmols*

**If you are unable to take a blood glucose level you MUST call for help immediately if AVPU score is P, U, or there is new confusion*

If score has changed by 3 or more:

1. Ring (9) 999 for an emergency ambulance
2. Call the ILS provider on duty and local medical staff to attend immediately
3. Bring resuscitation "Grab Bag" and oxygen to the patient
4. Administer oxygen at 15L per minute
5. Stay with the patient and repeat observations every 5 minutes, treat what you find e.g. low blood glucose

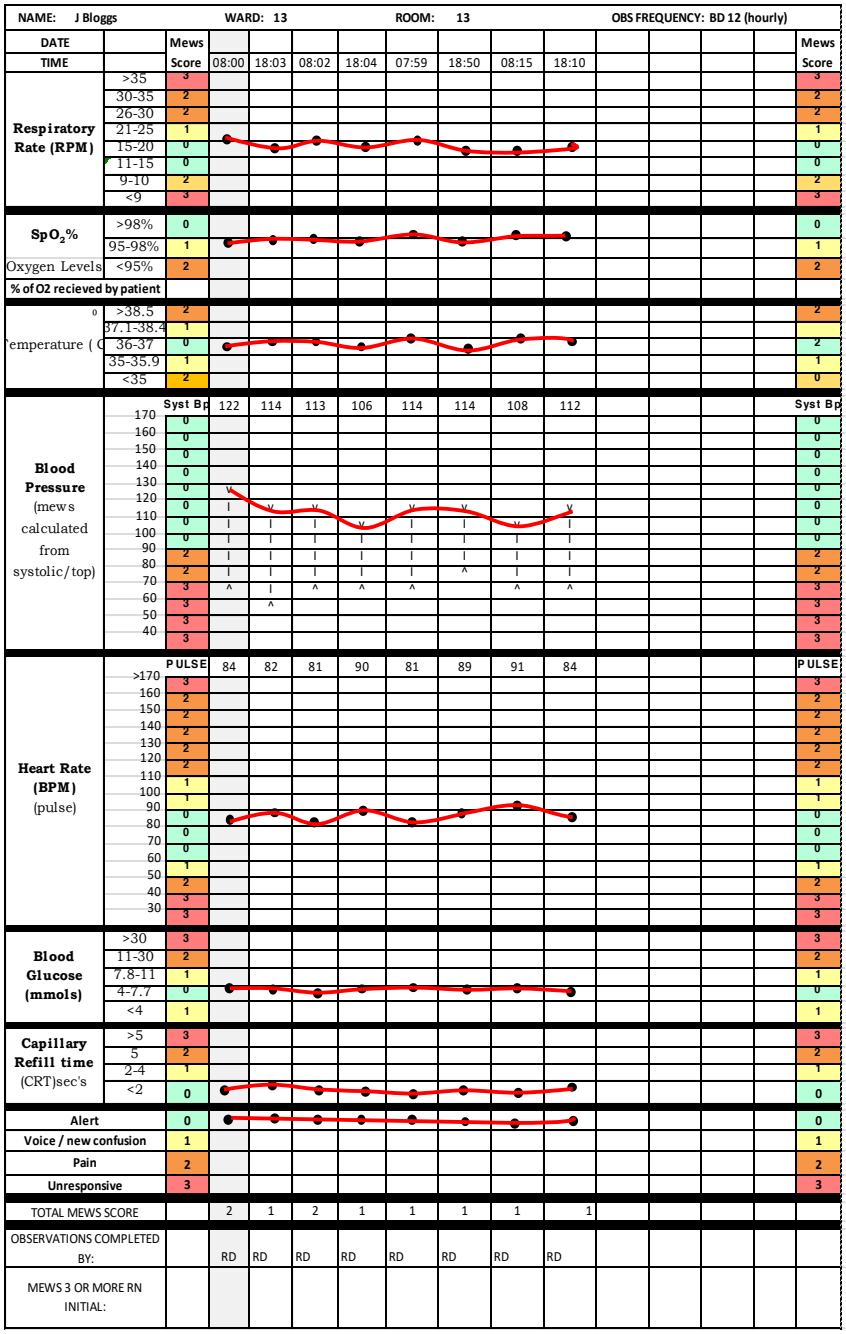
If Score has changed by 2:

1. Repeat in 10 minutes
2. Inform nurse in charge
3. Inform local medical staff if available

If Score has changed by 1:

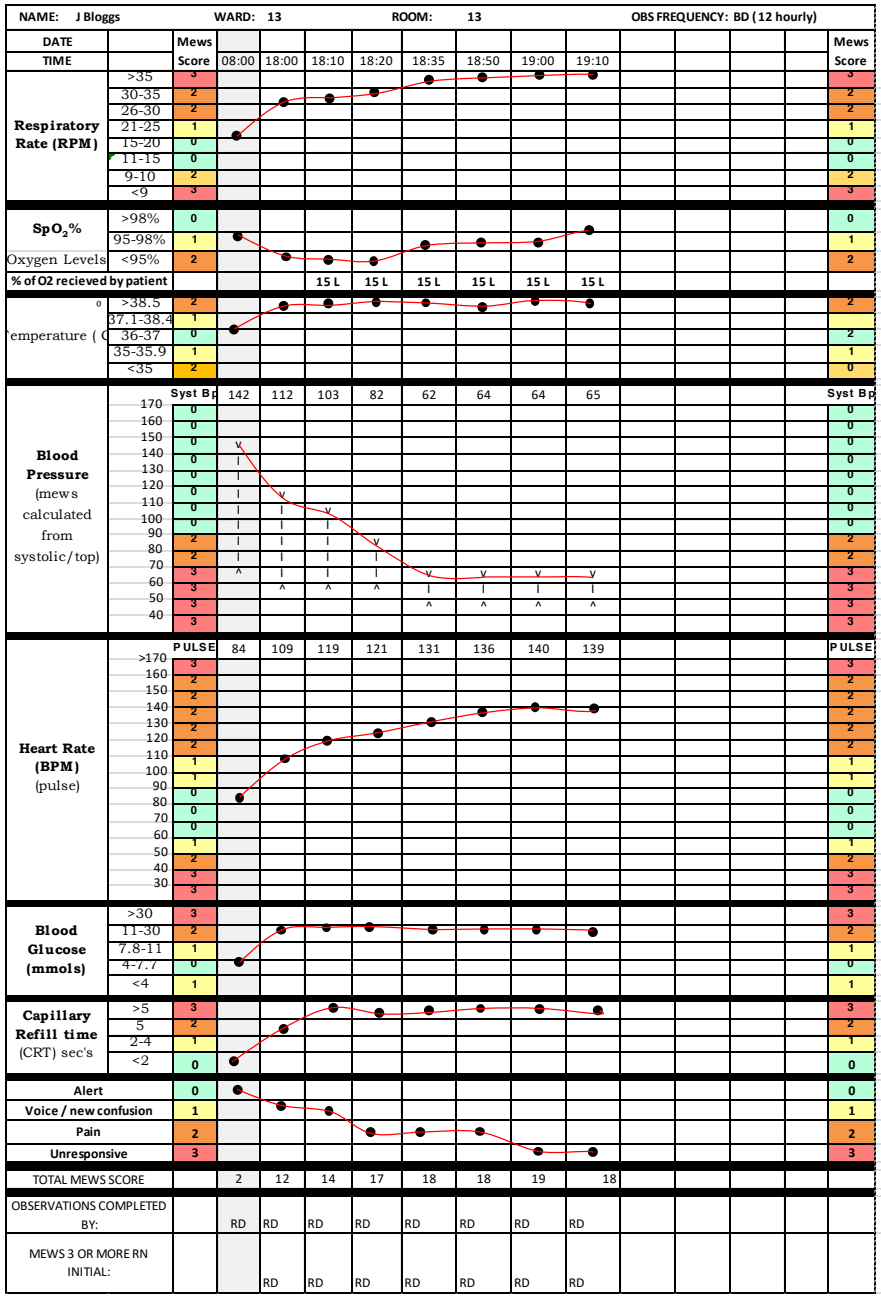
1. Repeat observations in 15 minutes
2. Inform nurse in charge of the area

Consider Sepsis – see Sepsis Poster on Staffnet – Resuscitation & Physical Health Emergencies – Quick Links to useful documents



What does this chart demonstrate?

Would we be concerned with what we have here?



NAME: J Bloggs		WARD: 13			ROOM: 13				OBS FREQUENCY: BD (12 hourly)					
DATE		Mews												Mews
TIME		Score	08:00	18:00	18:10	18:20	18:35	18:50	19:00	19:10				Score
Respiratory Rate (RPM)	>35	3												3
	30-35	2												2
	26-30	2												2
	21-25	1												1
	15-20	0												0
	11-15	0												0
	9-10	2												2
	<9	3												3
SpO_2%	>98%	0												0
	95-98%	1												1
Oxygen Levels	<95%	2												2
% of O2 recieved by patient					15 L	15 L	15 L	15 L	15 L	15 L				
Temperature (C)	>38.5	2												2
	37.1-38.4	1												
	36-37	0												2
	35-35.9	1												1
	<35	2												0
Blood Pressure (mews calculated from systolic/top)	Syst Bp		142	112	103	82	62	64	64	65				Syst Bp
	170	0												0
	160	0												0
	150	0												0
	140	0	v											0
	130	0	|											0
	120	0	|											0
	110	0	|	v										0
	100	0	|	|	v									0
	90	0	|	|	|									0
	80	2	|	|	|	v								2
	70	2	|	|	|	|								2
	60	3	^	|	|	|	v	v	v	v					3
	50	3		^	^	^	|	|	|	|					3
	40	3					^	^	^	^					3
Heart Rate (BPM) (pulse)	PULSE		84	109	119	121	131	136	140	139				PULSE
	>170	3												3
	160	2												2
	150	2												2
	140	2												2
	130	2												2
	120	2												2
	110	1												1
	100	1												1
	90	0												0
	80	0												0
	70	0												0
	60	1												1
	50	2												2
	40	3												3
	30	3												3
Blood Glucose (mmols)	>30	3												3
	11-30	2												2
	7.8-11	1												1
	4-7.7	0												0
	<4	1												1
Capillary Refill time (CRT) sec's	>5	3												3
	5	2												2
	2-4	1												1
	<2	0												0
Alert		0												0
Voice / new confusion		1												1
Pain		2												2
Unresponsive		3												3
TOTAL MEWS SCORE			2	12	14	17	18	18	19	18				
OBSERVATIONS COMPLETED BY:			RD	RD	RD	RD	RD	RD	RD	RD				
MEWS 3 OR MORE RN INITIAL:				RD	RD	RD	RD	RD	RD	RD				

What does this chart tell us?

Would we have any concerns with this patient's MEWS score?

Activity

Recording MEWS.

See sheets provided.

Recap

- When recording respiratory rate, do so for a full minute
- Ensure cuff fits correctly when taking blood pressure – confident in doing manual BP?
- When recording pulse, if abnormal – check manually
- If service user requires oxygen – add this as staff concern
- Need a complete MEWS. If gaps on chart this is NOT an accurate score

Why is hydration important

- Circulation
- Oxygen delivery
- If not maintained can lead to acute kidney injury and sometimes death
- Dehydration is a leading cause of admission into an acute care bed
- Hydration status important across other body systems

Signs of dehydration

- Poor/reduced urine output , monitor colour/ amount frequency (Think Kidneys)
- Low BP – rapid pulse
- Dry mouth
- Skin elasticity
- Lethargy
- Headache

Tips to prevent dehydration

- Monitor intake and output – record on fluid balance chart
- Offer frequent fresh drinks – ensure there is access to loo
- Records MEWS regularly and act quickly if changes
- Ensure environment is a comfortable temperature
- Inform medical staff and ask for review; may need bloods to monitor renal function & intravenous fluids

Factors influencing Hydration

Conditions leading to fluid loss e.g.

- increased respiratory rate e.g. infection
- High temperature
- Diarrhoea and or vomiting
- Excess sweating
- Physical exertion

Other causes

- Lethargy/loss of appetite
- Agitation or confusion
- Limited access to fresh and palatable drinks
- Oxygen therapy (causes dryness)

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Activity

Completing a fluid balance

Risk	Signs	Monitoring/ prevention	Resource
Dehydration 	• Irritability / Confusion • Lethargic • Thirst • Darker urine / small volumes • Sunken eyes • Cool hands or feet • Low blood pressure • Raised heart rate • Headaches • Dry lips and skin	• Offer drinks often, even through the night • Document fluid input and output on a fluid balance chart • Choose a cup suitable for the individual • If using incontinence pads, record the number of changes and whether urine has been passed • Observe for alternative types of fluid loss e.g. excessive sweating, diarrhoea and alert medical staff • Document and inform medical staff if suspicious of dehydration (see chart)	https://www.thinkkidneys.nhs.uk/aki/resources/care-homes/ Excellent resource and whilst targeting care home staff contains generic information appropriate for MH settings. Urine colour chart (available from resource above) 

Recap

- Ensure fluid balance is filled in accurately
- If intake is in adequate, take action – promote oral fluids, inform Dr as they may need further support.
- Any fluid intake is important. Estimate and record even very small amounts
- Urine output – if poor, encourage fluids , monitor but act if abnormal.