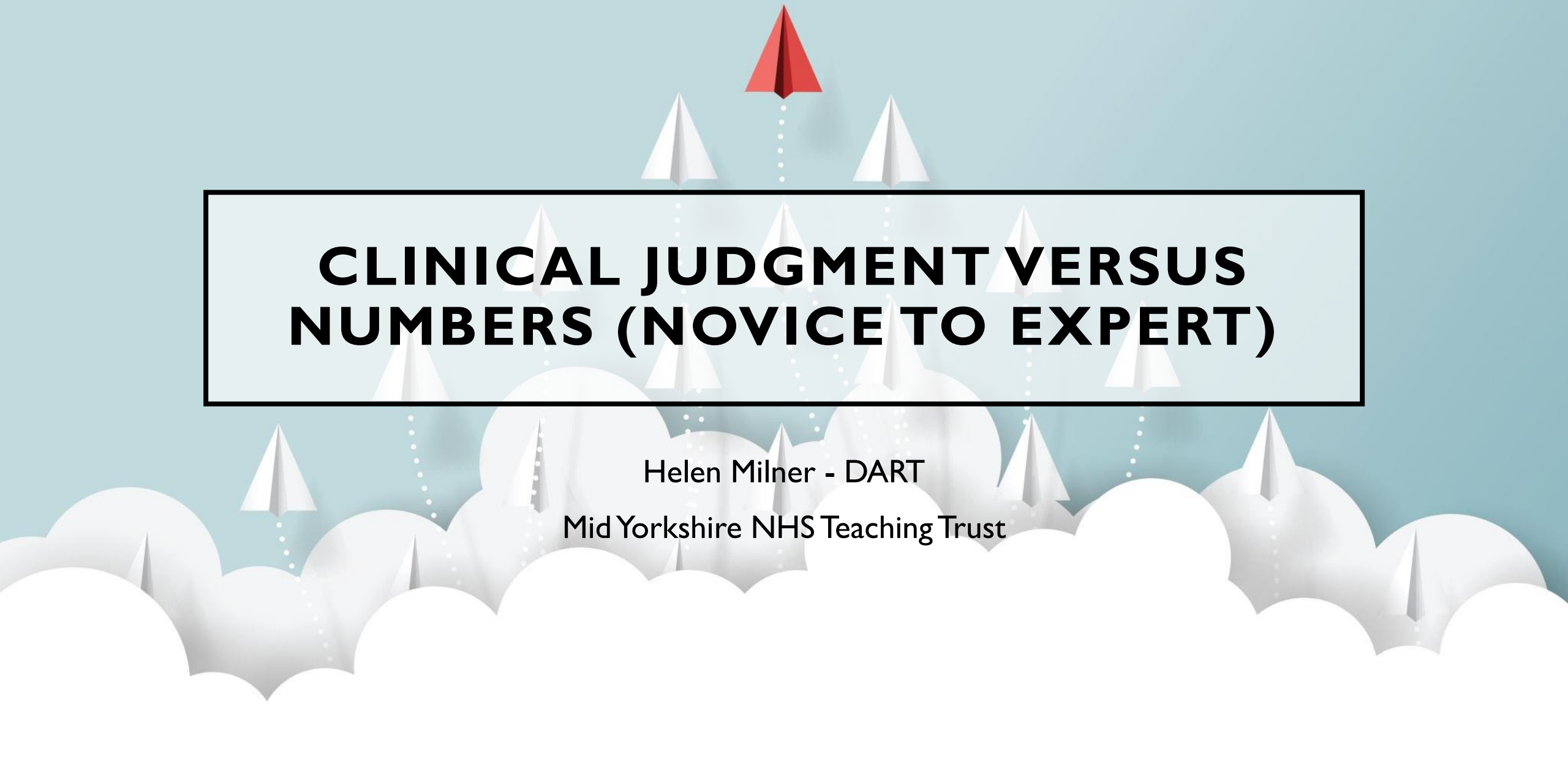


CLINICAL JUDGMENT VERSUS NUMBERS (NOVICE TO EXPERT)

Helen Milner - DART

Mid Yorkshire NHS Teaching Trust

THE DETERIORATING PATIENT - A HISTORY LESSON

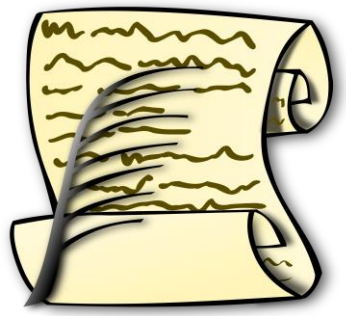
In the beginning was DOH (2000) Comprehensive Critical Care document.

This highlighted that over the 20 years prior to it's publication, evidence suggested that unexpected mortality and morbidity could be prevented by early recognition of deterioration and prompt action.

RECOMMENDATIONS

The report advocated:

- Track and trigger EWS systems and graded strategies for frequency of recording observations
- Timely escalation to Critical Care environment
- Development of educational programs i.e. ALERT
- Formulation of CCOT/MET teams



NCEPOD (2005) 'AN ACUTE PROBLEM' A REPORT OF THE NATIONAL CONFIDENTIAL ENQUIRY INTO PATIENT OUTCOME AND DEATH

A review of patients admitted to ICU was carried out in 2003, and published 2005, continued to highlight ongoing deficiencies in care with respect to identification of deteriorating patients, poor provision of CCOT services and lack of EWS systems.

RECOMMENDATIONS

- A clear physiological plan should be made for each patient with consultant review occurring within 24 hours of admission.
- Each hospital should have a cohesive track and trigger system, leading to the development by the Royal College of Physicians of NEWS (2012), and NEWS 2 (the COPD edition) (2017).
- CCOT 24/7.

WHY THE NEED FOR TRACK AND TRIGGER?

One of the key findings of the review conducted by NCEPOD (2005) identified that 66% of patients admitted to ICU had displayed physiological instability for more than 12 hours prior to admission.

Therefore the widespread use of track and trigger systems designed to help identify the deteriorating patient, how often observations needed to be conducted and what grade of medical personnel needed to be informed of said deterioration were introduced on a national scale.

SO WHAT'S MEASURED

- NEWS 2
- RR
- O2 – depending upon scale
- HR
- BP
- ACVPU
- Temp

Physiological parameter	Score 3	2	1	0	1	2	3
Respiration rate (per minute)	≤8		9–11	12–20		21–24	≥25
SpO_2 Scale 1 (%)	≤91	92–93	94–95	≤96			
SpO_2 Scale 2 (%)	≤83	84–85	86–87	88–92 ≤93 on air	93–94 on oxygen	95–96 on oxygen	≥97 on oxygen
Air or oxygen?		Oxygen		Air			
Systolic blood pressure (mmHg)	≤90	91–100	101–110	111–219			≥220
Pulse (per minute)	≤40		41–50	51–90	91–110	111–130	≥131
Consciousness				Alert			CVPU
Temperature (°C)	≤35.0		35.1–36.0	36.1–38.0	38.1–39.0	≥39.1	

CLINICAL JUDGEMENT, WHAT IS IT?

Tanner (2006) describes this process as 'Thinking like a nurse' and developed the Clinical Judgement Model.

This is split into 4 phases:

- Noticing – Assessment and recognition
- Interpreting – Analysis, planning and prioritizing
- Responding - Implementation
- Reflecting – Evaluating outcomes

CLINICAL JUDGEMENT, WHAT IS IT?

It is argued that things have moved on since 2006 with the evolution of nurse education, but do we really….

- Notice what a patient looks like?
- Interpret what we are seeing?
- Respond to the information we have?
- Reflect on whether the course of action chosen was the right one?

KNOW YOUR PATIENT

Patients are at risk not just because of their presenting complaint, but because of their co morbidities and their functional status.

Many people live their lives in a fine balance of complex issues, that even the most trivial of changes may have severe consequences.

An awareness of a patient's usual baseline function and pmh may aid anticipation of deterioration.

ARE NUMBERS PERFECT?

NEWS is about gathering data so as to generate a quantifiable outcome.

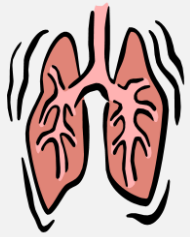
This then triggers a protocolized response depending upon local escalation policies.

However, they are only as good as the information entered. If parameters are not recorded accurately then an incorrect score will be generated. Potentially leading to a missed opportunity for identification and escalation of a deteriorating patient.

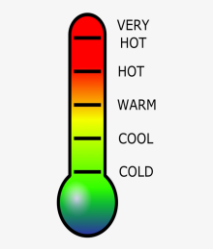
They are frequently recorded late.

There is risk of over reliance on numbers and the attitude of 'Their NEWS score is alright' without noticing subtle signs of deterioration.

IT'S NOT JUST ABOUT THE SCORES!



- RR – Number not pattern or effort. Is the work of breathing elevated, will the patient tire, is the chest moving as it should?
- O2 – A binary response – yes/no. Percentage of oxygen a patient is receiving is not taken into consideration. They are either on oxygen or not. There is no increase in NEWS score if the amount of oxygen required increases.
- HR – No information gathered regarding rhythm or character of pulse.
- BP – Number not trend.
- ACVPU – Not accurately recorded, 'Alert' is subject to interpretation as to is New Confusion. BG, is there awareness that blood glucose is affected by sepsis?
- Temp – Numerical but with no recognition of how a patient feels. Hot and clammy, cold and shutdown.
- Urine output is not even a factor in a track and trigger system.



BUT SOMETHING ISN'T RIGHT

Learn to recognise the subtle signs

- Change in breathing – have breath sounds changed, is more effort needed to breathe?
- Change in heart and circulation - changes in pulse rate/rhythm, experiencing dizziness, feeling faint, chest pain, sweating.
- Change in urine output - change in quantity, colour or smell of urine.
- Change in skin colour – mottling of skin, rash, pallor,
- Other changes e.g. pain, person not feeling well, change in appearance or behaviour. Fluctuating blood sugar levels.
- Changes in body temperature, chills or shivering.

ESCALATION

The benefit of a patient with an elevated NEWS score is that there is a clearly defined chain of command to escalate concerns to and devise a management plan.

A score that fits neatly into an escalation strategy makes communicating concerns regarding a patient's condition easy. A 'feeling' may not get the medical response required.

So, if concerns are not measurable or quantifiable? Does that mean we ignore that niggling feeling that something just isn't right?

SUMMARY

Clinical judgement, is a critical skill in nursing. The ability to utilise observational and assessment skills, and indeed all available information i.e. pmh, blood results and other investigations, in order to form an accurate picture as to a patient's condition is vital.

Early warning scores form part of that process but should not be solely relied upon when assessing whether a patient is deteriorating or indeed improving.

It is a cohesive approach taking all factors into account.

Ultimately, if a patient is making you feel uncomfortable, there's usually a reason why!