# Drowning in Data – A day on the ICU

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Consultant Critical Care, Nottingham University **Hospitals** 

Hon. Associate Prof. University of Nottingham

**FICM** Professional **Standards** 

NIHR Critical Care Specialty Lead - East Midlands





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# **Objectives**

- What does the data look like ?
- Why is it difficult for us to analyse it ?
- The Result....
- The Opportunity

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# **OPEL 4 (BLACK ALERT)**

#### **Opel 4 (Black Alert) Declared**

Due to sustained pressure and very limited flow and capacity we have declared Black Alert.

#### **URGENT ACTIONS REQUIRED:**

- · Senior managers to cancel all non-urgent meetings & focus on flow and discharges
- Specialty management teams with clinicians on non-clinical duties or involved in elective activity which has been cancelled to direct teams to support emergency pathway activity on wards or assisting ED
- If you are awaiting review by another speciality, please undertake consultant to consultant discussion to expedite this
- Please ensure all requests for radiology tests are in place by 11am. Urgent or discharge dependent tests should be discussed directly with radiology to aid prioritisation

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Patients whose observations meet criteria for High Risk Red Sepsis (NICE, 2016), **who have an infection\* (blue)**, of which have an EWS of 3 or more (red). Data from 1.11.17-3.1.18.





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#### Adult emergency admission patients with initial EWS of 4 or more on arrival at hospital NUH | Observations for arrivals between 1 November 2017 and 3 January 2018 Source: Nervecentre and Medway PAS



📶 02-UK 穼	17:08	* 🔳				
	Alert	+				
🕒 Early	Early Warning Score > 4					
1 Marsha	all, Sarah Fay					
O Flemm	ing					
Early Warning	Score > 4					
EWS: 7						
Chart: Ages_5	opriata team present					
RB: 21 /min (	1)	-65				
WoB: Settled	.,					
Oxygen Air: Ai	r					
Heart Rate: 80	) /min (1)					
Capillary Refill	: 2 secs					
Temp: 38.5 C	(2)					
BP: 120 / 80 n	nmHg (2)					
UO: 2.0 ml/kg/	/hr					
Colour: Norma	1					
AVPU: Alert or	responds normally	to social				



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# Resource

1	Occ	8	Occ	15	Occ
2	Occ	9	Occ	16	Occ
3	Occ	10	Occ	17	Occ
4	Occ	11	Occ	18	Occ
5	Occ	12	Occ	19	Occ
6	Occ	13	Occ	20	Occ
7	Occ	14	Occ	21	Осс

(Recovery + 2, ED Resus + 1, Theatres + 1)

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# **Planned Workload**

Hepatectomy – 3 hours	Cancer	
Colectomy – 3 hours	Cancer	
Laryngectomy & Flap – 8 hours	Cancer	
	Hepatectomy – 3 hours Colectomy – 3 hours Laryngectomy & Flap – 8 hours Spinal F	Hepatectomy – 3 hours Cancer Colectomy – 3 hours Cancer Laryngectomy & Flap – 8 hours Spinal F Spinal F Aortic Ar

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# Critical care units 'too full and understaffed'

By Owain Clarke BBC Wales health correspondent

() 26 August 2016

**Top Stories** 

# California rescuer saves 'muddy doll' baby

Rescuers continue to search for survivors after mudslides claim the lives of at least 15 people.

() 4 hours ago

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Mortality among Patients Admitted to Strained Intensive Care Units. Gabler et al. Am J Respir Crit Care Med. 2013 Oct 1; 188(7): 800-806.



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![](_page_14_Figure_2.jpeg)

![](_page_15_Picture_0.jpeg)

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- Present data rather than analyses it
- Fails to recognise relationships
- Fails to use models for prediction
- ...assumes mental models & patterns are correct

![](_page_15_Picture_6.jpeg)

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#### **ORIGINAL ARTICLE**

#### Intensive Insulin Therapy in Critically Ill Patients

Greet Van den Berghe, M.D., Ph.D., Pieter Wouters, M.Sc., Frank Weekers, M.D., Charles Verwaest, M.D., Frans Bruyninckx, M.D., Miet Schetz, M.D., Ph.D., Dirk Vlasselaers, M.D., Patrick Ferdinande, M.D., Ph.D., Peter Lauwers, M.D., and Roger Bouillon, M.D., Ph.D. N Engl J Med 2001; 345:1359-1367 November 8, 2001 DOI: 10.1056/NEJMoa011300

![](_page_16_Picture_5.jpeg)

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![](_page_17_Figure_2.jpeg)

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![](_page_18_Figure_2.jpeg)

![](_page_19_Picture_2.jpeg)

![](_page_20_Picture_0.jpeg)

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![](_page_20_Figure_2.jpeg)

![](_page_20_Figure_3.jpeg)

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![](_page_21_Figure_2.jpeg)

![](_page_22_Figure_0.jpeg)

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![](_page_23_Picture_1.jpeg)

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Multicenter, randomized, controlled trials evaluating mortality in intensive care: Doomed to fail?

Gustavo A. Ospina-Tascón, MD; Gustavo Luiz Büchele, MD; Jean-Louis Vincent, MD, PhD

![](_page_24_Figure_4.jpeg)

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![](_page_25_Figure_2.jpeg)

	Mechanical Support
	Cardiovascular
	Respiratory
	Pharmacology
	Metabolism
	Cellular Function

![](_page_27_Figure_1.jpeg)

![](_page_27_Figure_2.jpeg)

![](_page_28_Picture_1.jpeg)

![](_page_28_Picture_3.jpeg)