Better Medicine • Better Lives

COPIC Tip

WHAT'S WRONG WITH THIS PICTURE?

Look closely at this ER patient board and identify the concerning issue

Emergency Department = 36				Rapid Care = 4			Waiting Room				
Time	UnATT	PT	Gender	Complaint	С	Age	BP	Temp	Pulse	O2Sat	Resp
13:43 01/28	51		Male	Inj, Shoul	2	56 Years	157/100	97.9	99		14
13:59 01/28	84		Male	СР	2	51 Years	153/90	98.4	108	98	14
14:22 01/28	10		Female	HTN	2	77 Years	197/89	98.4	87		14
14:28 01/28	33		Female	Abcess	2	77 Years	128/49	98.1	81		14
15:27 01/28	17		Female	Complaint	2	20 Years	128/77	98.8	72	99	14
15:34 01/28	11		Female	Sr Thrt	2	21 Years	117/81	98.5	86		14
12:56 01/28	169		Female	HyperG	3	57 Years	172/89	99.1	94		14
13:02 01/28	73		Female	N/V	3	18 Years	113/68	98.7	70		14
13:05 01/28	73		Male	HTN	3	45 Years	151/83	97.8	64		14
15:20 01/28	23		Male	HA	3	39 Years	139/93	97.7	80		14
15:41 01/28	5		Female	GYN	3	28 Years	117/81	101.6	105		14
15:44 01/28	1		Female	Dizzy	3	29 Years	135/99	98.8	82		14
14:52 01/28	54		Male	Pain, Back	4	58 Years	147/97	97.9	85		14

Answer:

Yes, everyone on the ED board has the same respiratory rate, a phenomenon that could light heartedly be called Pansynopnea.

Unfortunately, failure to measure and record an accurate respiratory rate is a serious underlying factor in many potentially preventable errors and adverse outcomes. Some examples include:

- The post-procedure sedated patient who is now trending to hypoventilation prior to respiratory arrest. The pulse oximetry spiraling downward is a late finding, and when it does, there were probably many minutes prior to that event in which a decreasing respiratory rate would have been a warning sign. Failure to recognize is as important as failure to rescue, as a cause of preventable medical errors.
- 2. The septic patient whose respiratory rate is increased due

to the underlying metabolic acidosis and a fully functioning compensatory respiratory alkalosis. One could even think of the increased respiratory rate as similar to a bedside lactate.

- The value of the respiratory rate is made evident by the qSOFA score, a bedside prompt that may identify patients with suspected infection who are at greater risk for a poor outcome outside the ICU. It uses three criteria, assigning one point for low blood pressure (SBP≤100 mmHg), high respiratory rate (≥22 breaths per min), or altered mentation (Glasgow coma scale<15). More information is available at www.qsofa.org
- 4. The dehydrated patient who is really in DKA, the uremic patient, the toxic patient and all those with underlying metabolic acidosis might be diagnosed more readily by the compensatory respiratory

alkalosis in face of metabolic acidosis.

- 5. The ambulatory patient with "bronchitis" who really has something more, and is about to face a crisis of air exchange.
- 6. The pediatric patient, who despite a higher than normal baseline respiratory rate, is now trending much higher and one should be considering critical diagnoses earlier.

It has been said that you can't find a fever if you don't have a thermometer. Not accurately measuring respiratory rates should sound the same.

Please share this story with your office staff, your hospital staff, the emergency department staff, and all those who are tempted to either not record a respiratory rate, or fall into the evident epidemic of Pansynopnea.

*Image repurposed from Department of Emergency Medicine, University of Pennsylvania, Philadelphia, PA. Ann Emerg Med. 2005;46:469.