



BROCKTON HOSPITAL

MARCH 2017 QA

TOPIC: ELDERLY CHEST PAIN.

PARAMETERS:

- MATRIS 12 month query.
- Patients > 70 years old
- Primary clinical impression of chest pain.
- Received a 12-lead EKG

For a multitude of reasons, over a year's time (2016) system wide (all 12 towns) the MATRIS data showed we performed a 12-lead EKG on 75% of patients greater than 70 years of age, with a primary clinical impression of chest pain. An analysis of why this isn't 100 % showed many reason, mostly boiling down to we could do better documenting and partly we need to be better critically thinking medics. Here's a sampling.

1. 10% of the time the 12-lead is done, mentioned in the narrative, but not documented in the procedures list. This means it can't be query in the MATRIS database. Please pass on to the guys this needs to be done. Procedures, VS, Medications, CBG, etc need to be documented outside of the narrative as well or else it can't be queried.
2. 12-lead ekg done prior to arrival of EMS. I know this presents a problem documenting a time prior to arrival. It's probably best practice to repeat an EKG anyway.
3. Potassium of 2.6 didn't get a 12-lead. Most abnormal labs, Hct, K, Ca, Magnesium, Na etc should also be getting a 12-lead EKG.
4. 92 yr old chest pain then a fall, treated as a fall, no 12-lead
5. 84 yr old lung cancer pt with chest pain didn't get a 12-lead
6. 70 yr old hypertensive with chest pain, no 12-lead

You guys get the idea. Generally, we do a great job doing 12-lead EKGs. MATRIS queries of elderly shortness of breath calls show similar results. Each Coordinator reviews their respective department's calls. As Coordinators lets keep an eye on the data inputted to MATRIS procedures section that it reflects what was done and documented in the narrative. Let's pass on to the medics to maintain a high suspicion and to err on the side of doing 12-lead EKGs.

Fred Freeman

Medical Director comments on next page.

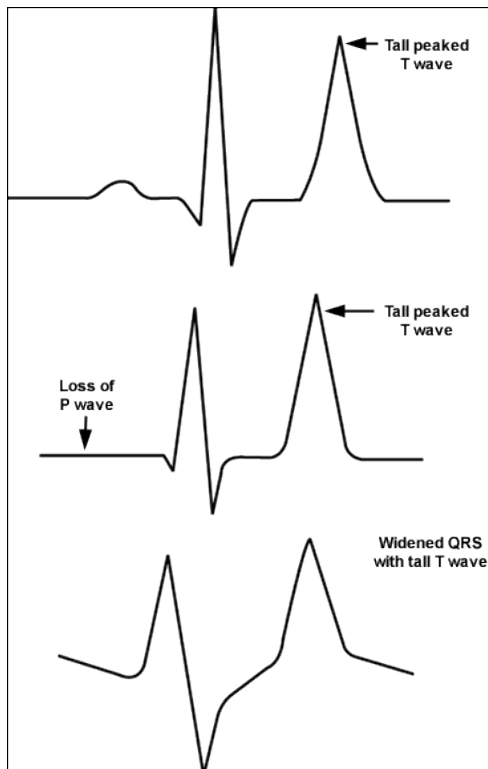
MEDICAL DIRECTOR COMMENTS:

Chest pain is obviously an area of great concern especially in the elderly. Overall, there should always be a very low threshold for getting an EKG. They are inexpensive, quick to do and provide invaluable information even when they are normal.

Beside the ability to diagnose acute myocardial infarctions, they also can address arrhythmias, heart blocks, metabolic abnormalities such as hyperkalemia and even inflammatory processes such as pericarditis and pericardial effusions.

So who should get the EKG? The obvious answer is at a bare minimum, any middle aged and elderly person complaining of chest pain should get an EKG. As seen with case #4, the medics went down the wrong pathway blaming the chest pain on the fall rather *delving a little more into the history and realizing the chest pain caused the fall*. You also need to be aware that chest pain is a subjective description and the presentation especially in the elderly and diabetics varies. Take for example the 92 year old female complaining of a tooth ache. Sounded straight forward until looking into the mouth and she had dentures. The “toothache” on further discussion turned out to be jaw pain which had been coming and going for several days. The EKG showed sub acute MI. The other classic atypical MI is indigestion and of course the shoulder pain. All these cases can end up being cardiac and they don’t necessarily occur in the elderly.

EKG’s can also be very beneficial when dealing with metabolic issues. The dialysis patient complaining of weakness has hyperkalemia until proven otherwise. This hyperkalemia can be diagnosed with an EKG and when treated can prevent a fatal arrhythmias.



In hyperkalemia T-waves become peaked and the P-waves flatten out. As the potassium raises, the QRS widens and will digress to a ventricular tachycardia.

Weakness is oftentimes the complaint because the elevated potassium prevents the muscles from contracting appropriately and can even cause a paralysis

So back to the original question; who should get an EKG?

- Any middle aged or elderly person complaining of chest pain who does not have a very obvious reason for the pain needs an EKG.
- Atypical complaints such as shoulder pain and jaw pain in the appropriate age group and with the appropriate circumstances should be given an EKG.
- Shortness of breath especially with exertion needs an EKG
- Complaint of feeling sluggish or fatigue in older individuals.
- Lightheadedness, palpitations, near syncope and syncope.
- And lastly..... ***THINK BIG WITH THE CHEST AND CONSIDER FROM THE EPIGASTRIUM TO THE ANGLE OF THE JAW AND ANY BODY PART IN BETWEEN THE CHEST.***

Daniel Muse
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