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The ESS "Emergency Hotline" provides physicians and hospital administrators quarterly updates on issues relevant to emergency medicine.

INSIDE THIS ISSUE

Flu season not yet over	1
Hospitals try to calm doctors' outbursts	1
Liver enzyme refresher	2
House officer duties	2
Diagnosing respiratory ailments	3

Flu season not yet over

By Peter Way, MD

The flu season is upon us again, so in review we need to remain cognizant of flu complications and sequela. This year, there are two Influenza A and one Influenza B strains rapidly spreading from large urban centers into the countryside. All strains have been resistant to Tamiflu, Flumadine, and Amantidinel therapy so far. Conservative therapy is recommended. There is some question of Relenza effectiveness, but only in combination with Tamiflu. Flu immunizations are still recommended as are proper hand washing precautions. In children, two flu immunizations are required. Masks should be worn by health care providers as needed.

In children and infants, the major complication of influenza is croup, bronchiolitis, viral pneumonia, and dehydration from nausea and vomiting.

Steroids can be used either orally or as a shot of Decadron in croup as long as there is no history of Hepatitis C or tuberculosis. Close follow-up is recommended, but not antibiotics or antiviral therapy. Approximately 10% of people contracting Influenza A will subsequently develop Strep infections, usually manifested as Strep Throat and Bronchitis in children. In these cases where bacterial secondary infections develop, antibiotics are indicated.

Remember to check for strep throat, as it also has serious sequela such as Rheumatic Heart Dz, Poststreptococcal Kidney disease, Bell's palsy, and Henoch Schoenlein Purpura. Recent studies show 5 days of Keflex is equal to 10 days of penicillin, and that steroids are good treatments for pharyngeal pain and swelling.

Please recall the FDA no longer recommends mixed cough

and congestion medications for infants or young children. Please remember to advise against using aspirin for children contracting a viral illness to prevent Reye's syndrome.

Adults face a whole range of flu complications. Primarily the most significant is the 10% sequela of Streptococcal Pneumonia in the elderly who develop influenza A. A fair number also develop dehydration and UTIs from the decreased water intake and increased water loss from fevers caused by flu. Usually these will arrive from the nursing home with fevers or mental status changes.

Another common sequela of influenza is acute myocardial infarctions and strokes. Many studies in the last 2-3 years have linked the vascular damage of flu to these common diseases of the arteries. Some protection has been shown with fish oil supplements.

Hospitals try to calm doctors' outbursts

Medical road rage affecting patient safety,

By Liz Kowalczyk

During an operation at a Salem, MA hospital last summer, an orthopedic surgeon, frustrated by a pair of scissors that wouldn't cut, threw them and narrowly missed a nurse.

In many hospitals, outbursts from a top surgeon who generates significant revenue or a star researcher who wins huge grants often have been tolerated. But in this instance, North Shore Medical Center disciplined the doctor who threw scissors and required mandatory team training for all operating room staff under a recent policy requiring physicians to treat their colleagues with "civility and respect."

North Shore is part of an

emerging effort to crack down on what some call health care road rage. The push is inspired by a growing body of research suggesting that swearing, yelling, and throwing objects are not just rude and offensive to co-workers, but hurt patients by increasing the likelihood of medical errors.

The national group that accredits health care organizations issued a safety alert to hospitals last month, saying outbursts threaten patient safety because they prevent caregivers from working as a team. The organization, The Joint Commission, for the first time is requiring all hospitals, nursing homes, and other health care facilities to adopt "zero-tolerance" policies by Jan. 1, including codes

of conduct, ways to encourage staff to report bad behavior, and a process for helping and, if necessary, disciplining offenders.

Dr. Peter Angood, chief patient safety officer for the commission, said most hospitals have tolerated health care road rage to the point where it has become an accepted part of the culture. That can be particularly true, others said, in high-stakes surgery, a field that can attract high-intensity physicians who are used to being in charge.

The typical attitude, Angood said, is "let's not irritate the physicians or else they're going to take their patients to another hospital."

Some surgeons have escaped

continued on page 4

Diagnosing respiratory ailments

By Leigh Dillard, MD

Can you recognize the difference between allergic, viral, and bacterial respiratory ailments? The treatments for them are very different. The best clinicians have a very difficult time in this differential diagnosis. They also often overlap, such as allergic rhino-sinusitis becoming secondarily infected and leading to bacterial sinusitis or lobar pneumonitis.

As a primary care, office based, physician I am confronted by this dilemma on a frequent basis. In this article I will attempt to share with you my poor diagnostic efforts to separate them. After reading the article, please feel free to share any tricks you have with me. After 33 years of primary family care, I still find it quite difficult.

I went through the stage of nasal smears for eosinophils or neutrophils on every patient. I found that actually added little benefit. I have also done CBC's on countless patients with acute respiratory symptoms and have also found that to add very little benefit, but some. The presence or absence of subjective fever is also of minimal benefit. First I will tackle acute hay fever, aka allergic rhinitis, allergic rhino-sinusitis, and allergic sino-bronchitis. It is seasonal and there are year round seasons. The key would be the patient who states, "I get this cold every year about this time."

Early Fall: ragweed, bahaya grass, September to first hard frost

Winter: environmental, house dust mites, home fibers, anytime indoor heating in use

Early spring: oak trees, other hardwoods, mid January to April

Mid-Spring: flowering trees and shrubs, March to May

Late spring: mold and fungus, warmer (70° or higher), wet weather

Summer: grasses and weeds, Johnson grass, Timothy grass, many others, mold and fungus after rains

Symptoms: Very acute onset, sneezing prominent, noisy breathing (children resistant to mouth breathing as are many adults), nasal breathing not much improved with blowing of nose or suction since swollen turbinates

are causing the obstruction, myalgias. Dry cough early becomes wet later.

Duration: Lengthy, "I've had this for a month"

Fever: If present is usually low-grade 99 - 100 range

Mucus: Clear to light yellow Nasal Mucosa - turbinates very swollen, boggy appearing, pinkish-blue in color. Large amount of drainage late in course, very little early, congestion mainly due to turbinate swelling

Oral Pharynx: uvula may be swollen and erythematous, remainder of oral pharynx exam normal

Ears: TM retraction common,



sometimes mildly injected, remember may be bright red if child screaming

Facial rash: Atopic eczematous rash on cheeks sometimes present

CBC: Not consistent, varies during symptomatic period
tNext is the Viral URI, LRI, or both. It is not seasonal other than being more likely from December to April. It is contagious, so if you truly see one, you will see many.

Symptoms: Usually has a prodromal phase of myalgias, arthralgias, and headache, sneezing present but less prominent, breathing not as noisy and better when nasal passage cleared by blowing nose or suction, myalgias, arthralgias, headaches persist. Dry to mildly productive cough.

Duration: Prodrome 3-5 days, symptoms 7-14 days

Fever: Usually 100 - 103 range

Mucus: Light yellow

Nasal Mucosa: turbinates slightly swollen, inflamed and erythematous

Large amount of drainage early in course, congestion equally due

to turbinate swelling and secretions

Oral Pharynx: injected

Ears: TM retraction common, often injected and bright red

Facial rash: usually not present

CBC: WBC may be low <4,500. This can be helpful.

Now I will tackle bacterial sino-bronchitis. It can often be a complication of either allergic or viral respiratory illnesses. Often there is the history of a preceding set of symptoms that seemed to get better before the current symptom complex began.

Symptoms: Often a history of a preceding illness similar to one of the above that seemed to get better then went into the current illness. Productive cough early unless lobar pneumonia where cough is dry, atelectatic. Chills and sweats, often night sweats, Dyspnea, facial pain.

Duration: Usually come for treatment early (3-5 days) because they feel sicker.

Fever: Usually 101.5 - 102.5 range

Mucus: very yellow to green to brown

Nasal Mucosa: depends on whether sinusitis, bronchitis, or both.

Drainage - if present, usually purulent.

Oral Pharynx: may see purulent postnasal drainage

Ears: TM retraction or bulging common, often injected and bright red. May be uninjured.

Facial rash: usually not present, face may be flushed or pale

CBC: WBC 9,500 to >20,000 with left shift

I find a chest x-ray and upright water's view of the sinuses to be productive tests when I have a higher than usual index of suspicion that the illness is bacterial. Impacted maxillary sinuses with air/fluid levels may indicate just maxillary or even pan sinusitis.

Treatment becomes easier when a systematic evaluation for a definitive diagnosis is performed. The decision points are steroids or not, antibiotics or not, antihistamines or not. I suggest you develop a regimen for each situation above and use them with what confidence you can muster for this difficult diagnostic challenge. When you do you will gain more and more expertise in the decision. Still, don't forget to suggest follow up if their symptoms are not improving.

"Treatment becomes easier when a systematic evaluation for a definitive diagnosis is performed. The decision points are steroids or not, antibiotics or not, antihistamines or not."

Liver enzyme refresher

By Leigh Dillard, MD

Liver function enzymes are routinely ordered from the ED when some form of liver dysfunction is suspected. It is thus instructional for us to have an occasional refresher on the value and interaction between LFT's. There are four main enzymes which are most helpful in evaluating liver disease: AST/SGOT (aspartate aminotransaminase/serum glutamic oxaloacetic transaminase), ALT/SGPT (alanine aminotransaminase/serum glutamic pyruvate transaminase), AP (alkaline phosphatase), and GGT (gamma glutamyl transpeptidase). Certainly the bilirubins and LDH are also important, but are not addressed in this article.

AST and ALT are known as the aminotransaminases. Their serum elevation is associated with inflammation and/or hepacyte injury. When hepatocytes in the liver are damaged or die, these aminases leak out into the bloodstream and cause serum elevation. AST, not exclusive to the liver, is also

found in kidneys, muscles, and the heart, so a high level does not always suggest liver damage. Even vigorous physical exercise may result in higher AST blood levels. On the other hand, ALT is found almost exclusively in the liver, and high levels of ALT almost always indicate that there is intrinsic liver disease.

Also, high levels of serum transaminases don't always reflect how badly the liver is damaged. Normal values for AST and ALT are 0-42 and 0-48, respectively. The blood tests only suggest inflammation and/or damage at a given point in time and may be higher if alcohol or Tylenol in large amounts were ingested recently. On the other hand, if the liver was damaged years ago by excessive alcohol use, the results of these tests may be normal, but a damaged liver may still be present. Other minor AST/ALT serum level aberrations may occur based on race (African-American men levels higher routinely than Caucasian men), sex (male levels higher than female levels),

time of day (higher levels in morning and afternoon than in the evening), and food intake (except alcohol), which does not seem to affect transaminase levels appreciably.

The ratio or relationship between AST and ALT also can provide helpful information about liver disease. Most liver diseases (viral hepatitis, Tylenol overdose, liver tumor, and genetic liver diseases for example) are characterized by greater ALT elevations than AST. However, cirrhosis, alcoholic liver disease, and Wilson's Disease are associated with higher AST levels than ALT (often in ratio of 2:1). Because AST is found in so many tissues, AST elevations are also associated with the following:

*Acute Coronary Syndrome
Congestive Heart Failure
Acute Pancreatitis
Hemolytic Anemia
Severe Burns
Trauma
Musculoskeletal Disease
Shock*

House officer duties

By Leigh Dillard, MD

When ESS markets your services to small and medium hospitals, one of the services we mention is House Officer duty. The Medical Staffs at those hospitals almost always ask about this. This article is intended to make those duties more clear to both the ESS Physicians and the hospitals we staff.

There will be a local Physician on backup call for severe situations such as multi-victim disasters or accidents. Those backup Physicians can also be called on when the ER is just over run and waiting times are unacceptable. If you are admitting a critical patient that requires prolonged bedside medical care, those backup Physicians should be notified to continue that care.

In-house calls from the medical-

surgical floor for routine problems frequently encountered should be evaluated and managed by the House Officer portion of your job description. Examples would be sleep medications, pain medications, acute dementia episodes (sundowner's syndrome), laxatives, acute urinary retention, uncomplicated falls, unexpected temperature elevations, nursing request for order clarification, and so forth.

The Physicians in these smaller communities have busy daily schedules in their offices. Allowing them to be free of unnecessary nighttime interruptions is a service we want our ER Physicians to provide. This House Officer function is completely separate from "Hospitalist" functions. The hourly rates we negotiate to pay you, include the House Officer

duty. If there is a "Hospitalist" contract in effect where you are working, you will know that before your shift and be compensated accordingly.

Your schedules of 12 to 24 hour shifts should be managed by you to allow for adequate rest during your time off. You are not being paid an hourly rate to sleep, but if the opportunity to sleep arises and does not interfere with your ER and House Officer duties, by all means avail yourselves of it.

If for some reason you are not willing to provide the House Officer duties in the hospitals where you are scheduled, it is your responsibility to make that clear to the scheduler. That decision may make it more difficult or impossible to schedule you. However, you should address that unwillingness to provide House Officer duty up front.

"The Physicians in these smaller communities have busy daily schedules in their offices. Allowing them to be free of unnecessary nighttime interruptions is a service we want our ER Physicians to provide."

Story ideas or comments?

Email Mickey Seidenstein at

Mickey@emergencystaffingsolutions.com

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Contributors

Peter Way, MD
Medical Director, ESS

Leigh Dillard, MD
Medical Director, ESS

Liz Kowalczyk
Boston Globe

Hospitals try to calm doctors' outbursts

continued from page 1

discipline even after frequent offenses. At Saint Vincent Hospital in Worcester, orthopedic surgeon Peter Mulhern repeatedly yelled at colleagues over six years - including calling one nurse a "lame-brain" and "an idiot" for seeking additional consent prior to a patient's surgery - before the hospital suspended him in late 2002, according to the state Board of Registration in Medicine, which licenses physicians.

The last straw: He threw two 10 pound sandbags, used to position a patient's arm, to the operating room floor; one hit a nurse's foot, according to the board.

It was the ninth complaint about Mulhern, who moved to practice in Georgia after his suspension. Current administrators at the hospital, which is under new ownership, said they are not sure why the situation was allowed to continue for so long. Mulhern, who completed an anger management program, did not respond to a request for a comment.

Dr. Anthony Esposito, chief of medicine, said that a case now goes to the medical executive committee for a decision after a person has three outbursts. As for Mulhern's nine episodes, he said, "the number is absolutely unacceptable."

In calling for a new policy, the Joint Commission cites several studies linking bad behavior to errors. For example, one survey found that some nurses and pharmacists had avoided consulting with a prescribing doctor because they did not want to interact with that particular doctor.

"The number one issue in the errors that occur is bad communication," said Angood. "The industry needs to put a stop to this."

Many hospitals have already adopted civility policies, including Massachusetts General Hospital, where leaders of the hospital's patient safety initiative saw a link between errors and disruptive behavior, said Jeff Davis, senior vice

president for human resources.

But policies are just a first step. Specialists say a key issue is making sure staff members are comfortable reporting colleagues' outbursts without fear of retaliation.

At North Shore's Salem Hospital, nurses did report Dr. Murray Goodman when he threw the scissors. Fran O'Connell, head of the hospital's nurses' union, said tension was high in the operating room because Goodman was running late for two surgeries to correct carpal tunnel syndrome and the two nurses were new.



"The scissors didn't cut to his liking; he was trying to cut suture material. He said they were dull. He tossed them across the room. One of the nurses had to dodge the scissors," O'Connell said.

O'Connell said nurses were frustrated because they felt the hospital was slow to take action - and when the hospital did discipline Goodman, administrators would not tell nurses the details. Dr. Marc Rubin, who implemented the civility policy when he became chairman of the surgery department two years ago, said the specifics of the discipline are confidential. Goodman declined to comment.

North Shore spokeswoman Laura Fleming said administrators learned from this incident. When the civility policy was expanded to the entire medical staff this year, it was streamlined so that cases that can't be resolved informally reach the medical staff professional conduct committee, a group of doctors and administrators that makes disciplinary decisions, more quickly.

"These incidents happen because the OR environment

is so high stress," said Rubin. "Surgeons hold patients' lives in their hands, yet they're dependent on equipment and people who are outside their control. This incident was over a year ago and there has not been another incident with this physician."

Most hospitals don't track how many doctors, nurses, and other employees engage in disruptive behavior. But administrators at Vanderbilt University Medical Center estimate that 4 percent to 6 percent of doctors and nurses have repeated outbursts. Vanderbilt, which has one of the most extensive programs to track and deal with such behavior, began focusing on the problem a decade ago when administrators found that physicians who were sued often were more likely to have abusive outbursts. The medical center now advises 34 health care facilities on addressing the problem.

Some leaders in the field believe the number of doctors and nurses acting out is rising. Angood said Joint Commission surveyors hear about the issue constantly when they visit hospitals, where frustration is escalating amid growing financial pressures.

"You're looking at a very stressed out industry," agreed David Yamada, a Suffolk University law professor who specializes in employment issues including workplace bullying. "You have an industry in crisis where people are having to do much more with limited resources. That combination can be a potent one."

But others believe that the problem is not necessarily getting worse, but, rather, that the patient safety movement has focused more attention on the conditions that lead to medical errors, encouraging staff to report bad behavior more often and hospitals to respond more quickly.

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