Opiates For Severe Asthma - A Conversation with Dr. Leo Stemp

From: Reuben Strayer
Date: Sun, Oct 5, 2014 at 3:30 AM
To: Leo Stemp

Thanks for your comments, Dr. Stemp, in the recently released AmJEM letter. [http://goo.gl/DQc3Ps]

I have never heard of opiates used or recommended for severe asthma. Are you aware of any data to support this practice?

reuben

From: Leo Stemp
Date: Wed, Oct 8, 2014 at 8:18 AM
To: Reuben Strayer

Reuben, sorry for the delay in responding, your message wound up in my spam box.

In a general medical-surgical ICU, resp failure accounts for 85-90% of the admissions for acute illness. So our business is, essentially, the management of respiratory failure, and our #1 goal, therefore, is to avoid intubating people (bec once they're intubated, play time is over.) So when someone presents with resp distress, of any etiology, there are two treatments that are administered, to every patient:

1. Treatment aimed at alleviating work of breathing (WOB) -- bec you must prevent resp muscle fatigue.
2. Treatment aimed at the underlying cause of the resp distress.

Everybody focuses on #2. We focus on #1, bec all the money is in #1. If you don't prevent resp musc fatigue, you'll have to intubate the patient, and the game is gonna be over pretty quickly. Any monkey can give

bronchodilators, steroids, Lasix, etc. But that won't cure your resp distress, certainly not quickly enough.

In view of that, opiates are the first line treatment for all manner of respiratory distress, bec they slow the resp rate, which is one of the two ingredients in WOB. See pages 3-5 of the first attachment for a full discussion of this.

But there's also a second reason for using opiates, which among all patients with resp distress, is unique to patients with asthma -- and that is the magic of a slow resp rate. See the second and third attachments for a full discussion of why you MUST slow the resp rate in asthmatics.

It's interesting that you commented that you'd never heard of opiates used for severe asthma. About ten years ago, I was at a big conference in NY City put on by the Society of Critical Care Medicine (the national organization for critical care docs) on newer modes of mechanical ventilation. All the big national and international gurus in mechanical ventilation were presenting. The major topic of discussion was actually noninvasive ventilation (esp BiPAP). Most interesting (to me) was that not a single person mentioned the use of opiates for resp distress -- and in our ICU, opiates are the FIRST line treatment for any manner of resp distress.

So your email is the second time I've heard someone say that they'd never heard of opiates used for resp distress. And you're right, there's no data on this that I know of, and very few people are knowledgeable about it, for reasons that mystify us. It's all straightfwd physiology. We keep telling our ED docs how to treat resp distress, but they don't get it.

Well, give it a shot and let me know how it works out for you.

Best,

Leo

Three attached documents:
http://goo.gl/lCSclF
http://goo.gl/CGURcz

http://goo.gl/jbUiAs

From: Reuben Strayer
Date: Wed, Oct 8, 2014 at 9:08 AM
To: Leo Stemp

Thanks Leo.

I've just scanned these documents, thank you for sending them. If what you say about opiates in asthma is even partially true, you really must publish something, anything, to get the idea out there - even if your unit is not set up to do anything experimental, just do an observational case series. Then someone else can subject the therapy to science.

I read every paper on severe asthma that comes through the EM literature, and there is nothing on this, and I've heard nobody speak of opiates as an asthma therapy, and it's in no guideline.

It makes sense, decrease the respiratory rate - that's certainly what we do when we intubate them. But as you note, it goes against conventional teaching and is therefore scary to give a respiratory depressant to a patient in respiratory distress. We need some science; you saying it works is not enough.

Thanks again for sending me these documents, much food for thought.

reuben

From: Leo Stemp
Date: Wed, Oct 8, 2014 at 10:53 AM
To: Reuben Strayer

Yikes. Reuben, that's my point: What I sent you is science (whether it's published or not). Don't wait for the publishing world to catch up to what YOU think makes sense, from a physiologic point of view.

Leo

"The lack of controlled studies has led to vehement rejection of [these] approaches despite ample scientific logic for [these] treatment concepts. Unfortunately, the rigidity of the Western scientific approach, which demands absolute proof and total rejection of the unproven, is sadly adverse to patients afflicted with [disorder] and can prevent the acceptance of effective treatment regimens for an entire generation. Practicing physicians, not so tightly bound by protocol guidelines and the ideological necessity for scientific proof required by academic centers, and facing daily and personally the unfolding tragedies of the “untreatables”, often are in a perfect position to discard outmoded concepts and initiate ‘unproven’ but very effective treatment innovations." – Paul Altrocchi, MD, Chairman, Dept. of Neurology, Palo Alto Medical Clinic

Norman Geschwind, the late professor of neurology at Harvard, commented in an article in The Encyclopedia of Medical Ignorance that "there is a widely held supposition that one’s scientific peers are honest, well-informed, not swayed by prejudices, and open to imaginative ventures into the unknown. It is my purpose here to point out that in the field of the neurology of behavior, major advances were neglected, not for a few years but for nearly half a century."

From: Reuben Strayer
Date: Wed, Oct 8, 2014 at 11:01 AM
To: Leo Stemp

>Don't wait for the publishing world to catch up to what YOU think makes sense, from a physiologic point of view.

Sorry you feel that way, Leo.

Thank you again for a stimulating idea.

reuben

From: Leo Stemp
Date: Wed, Oct 8, 2014 at 5:53 PM
To: Reuben Strayer
Cc: George E. Karras, Julia Bonacum, Kathy Hutchins

Reuben, it just struck me -- now I get why nurses and physicians don't use opiates to treat resp distress. Like you say, it goes against the grain to give a resp depressant to someone in resp distress. But that's only if you don't understand resp failure. Once you understand the physiology of resp failure and work of breathing, it is immediately apparent that opiates are mandatory to prevent gross resp failure.

Those of us in the ICU not only intimately understand the physiology, but we're intimately familiar with dealing with resp failure, so we have no fear. It's probably like sky diving, I'd imagine -- frightfully scary to the novice who doesn't know anything and has no experience, but as easy as putting his pants on for the instructor with 30 years under his belt. Now I get it.

From: Leo Stemp
Date: Wed, Oct 8, 2014 at 5:58 PM
To: Reuben Strayer

Reuben, not that it's any help to you, but I forgot to say that we have rescued dozens and dozens of asthmatics in the ED simply by giving them fentanyl and CPAP. There's nothing more catastrophic than an intubated asthmatic, so when we get a call from the ED, we get down there fast! I've yet to have to intubate one that they've called me about (FWIW). To be honest, the rescue of a desperately tight asthmatic with fentanyl and CPAP is so childishly simple and effective, it's embarrassing when we go down there.

From: Reuben Strayer
Date: Wed, Oct 8, 2014 at 7:18 PM

To: Leo Stemp

Sounds like a remarkable approach Leo. Thanks again.