



Bruno “Bytes”

January, 2019

From Dr. Richard L. Bruno, HD, PhD
Bits and Tidbits from the Post-Polio Coffee House

On the topic of the Effects of Winter’s Chill (1/1/2019)

Dr. Bruno’s Original Post: WINTER’S HERE! WELCOME POLIO FEET?

Polio survivors have blood flow to the skin of the legs and feet that’s too good, causing hot body-core blood to dump its heat, makes leg blood vessels contract and legs and feet get cold and purple. Polio survivors’ skin temperature is 20° LOWER than the outside temperature, so 65° acts like 45°



at the surface of polio survivors’ skin. There are several articles (under the topic “Temperature”) on polio feet and keeping legs warm in the [Encyclopedia of Polio and PPS](#)

On the topic of why Rehabilitation Physicians are best able to do EMG’s (1/3/2019)

Dr. Bruno’s Original Post: Why you WANT a rehab doc, versus just any neurologist, to do an EMG. Even if you have a rehab doc, you want to make sure that he or she does *at least one* EMG a week as a bare minimum...

New Study Shows Disparities in EDX Training in Residency Programs

Newswise — (ROCHESTER, Minnesota, Jan. 3, 2018) – Results from a 2017 survey shared at the 2018 annual meeting of the American Association of Neuromuscular & Electrodiagnostic Medicine (AANEM) illustrate significant disparities in the amount of training that neurology and physical medicine and rehabilitation (PMR) residents receive in electrodiagnostic (EDX) medicine. “Our data showed a great difference in how programs teach EDX medicine, including nerve conduction studies (NCSs) and particularly electromyography (EMG). The differences included duration of training in weeks, supervision, independence in performing NCSs and EMG, continuous or fragmented training, the training years of residency, the number of attending physicians teaching the residents, organized conferences, the number of NCSs and needle EMGs performed, and exposure to pathology material,” stated AANEM member Peter D. Donofrio, MD.

Dr. Donofrio and Raghav Govindarajan, MD, distributed approximately 400 surveys to neurology and PMR residency programs on 24 topics related to the training of residents in the technique and performance of peripheral EDX medicine. Of the programs that responded, 65% were neurology, 35% were PMR.

The survey results were as follows:

- > Average Training Time for EDX:
 - Neurology Residency Programs: 8.4 weeks (Range 0-52 weeks).
 - PMR Residency Programs: **21.3 weeks** (Range 8-48 weeks).
- > Training in needle EMG was required in 94% of programs.
 - > Performance of the needle examination was observational only in 8% of programs and in 61% of programs the trainee was supervised continuously by faculty.
- > More than 80% of programs conducted organized needle EMG and neuromuscular teaching conferences as part of the rotation.
- > The majority of programs had 3 or more attending physicians teaching EDX.

The findings clearly indicate disparity in the amount of EDX training across residency programs and that PMR residents receive substantially more EDX training. Dr. Donofrio said he was not surprised by the results. “The findings were in keeping with my expectations as I anticipated the range of the data would be broad, particularly for neurology training programs. This is actually one of the reasons I pursued this study,” Dr. Donofrio explained. “The disparities have many explanations. Some are historical, as EMGs are not emphasized in some training programs. Additionally, residents are heavily involved in inpatient and outpatient medicine and the time to teach EMG is lessened by other neurology and PMR forces such as inpatient wards, inpatient consults, emergency room responsibilities, sicker patients, residents’ desire to have more electives, 80 hour work weeks, and the list goes on.”

The training disparities can have a significant impact on patient care. “Probably the biggest impact is in the area of private practice where there are many neurologists out in the community doing EMG with limited training. This does not happen in PMR where all residents are required to be fully trained within their residency – *PMR requires 6 months of EMG, neurology requires zero.* As a result, neurologists who are interested in neurophysiology and neuromuscular medicine end up receiving their EDX training during their fellowships,” explained Eric J. Sorenson, MD, and Past President of the AANEM.

“On one hand, it is very reassuring that PMR residencies continue to focus on providing an excellent training experience in EDX, but on the other hand, neurology residencies have a very wide variability in training. The field of neurology has become highly subspecialized – 15 different kinds of fellowships and counting – but a basic understanding of peripheral nerve/muscle disease and the role of EDX in their diagnosis and management is still an essential part of a neurologist’s arsenal and is needed irrespective of how subspecialized we become,” noted Dr. Govindarajan.

Anthony E. Chiodo, MD, MBA, and current AANEM President, says that while training programs may differ in the amount of time dedicated to EDX medicine, neurology and PMR physicians can demonstrate their knowledge in EDX by becoming certified by the American Board of Electrodiagnostic Medicine (ABEM) and receiving EDX Laboratory Accreditation through the AANEM. “Receiving ABEM board certification and ensuring your EDX laboratory is accredited demonstrates an important bar of achievement and robust EDX standards, so patient care is assured,” said Dr. Chiodo.

Now that the survey results have been tallied and distributed, Dr. Govindarajan says the next step will be to create a white paper that can be shared with the Accreditation Council for Graduate Medical Education (ACGME) and other accreditation bodies on the recommended minimum requirements of EDX training for neurology residents. “This will hopefully streamline and create uniform training standards across residencies in the country,” noted Dr. Govindarajan.

<https://www.newswise.com/articles/view/705928/?sc=mwhn&fbclid=IwAR3jFJ1bahJPdQvPALrU0-6J5feZF-GrgdcoqIAI8urW5Ahtq4XU25oSfN8>

On the topic of understanding Medicare “Observation” Status (1/6/2019)

Original Post: Understanding the “What if’s” of hospital admissions.

[Howard Gleckman](#)

Jan 2, 2019, 11:39am

No issue generates more anger and confusion among Medicare recipients than observation status—that hospital stay that really isn’t a hospital stay. Over the holidays, I got an earful from three people who had been treated at a hospital by hospital staff yet not admitted to the hospital.

A typical case goes like this: A person comes to a hospital emergency department with chest pain. The ED docs determine she is not having a heart attack but want her to stay overnight to monitor her health. But instead of admitting her as an inpatient, the hospital keeps her for a day or so as an outpatient, sometimes on a separate unit but sometimes—and more confusingly-- in a regular room. This is different from a patient



who stays in the emergency department, sometimes for many hours, while the hospital waits for an inpatient bed to open up. Unlike observation, which is an explicit choice, ED boarding is unplanned and forced by a temporary lack of beds.

Hospitals hate the rule. There has been an enormous growth in observation stays in recent years. Medicare spending for observation increased from \$690 million in 2011 to \$3.1 billion in 2016. Despite what many patients think, hospitals hate the rule. While reimbursements differ depending on a patient’s condition, Medicare pays hospitals roughly one-third less for an observation stay than for an admission.

But hospitals feel that Medicare gives them little choice. The government sets strict [guidelines for admissions](#). And it imposes tough penalties on facilities that Medicare auditors believe wrongly admitted patients. In those cases, the hospital must return to Medicare the entire payment for that admission, not just the difference between an observation payment and the admission. In 2016, the outside audits required hospitals to [return more than \\$400 million to Medicare](#) for improper Part A charges including observation.

Consequences for patients. Last year, Medicare made another rule change: [It removed total knee replacements from its inpatient-only list](#), thus increasing pressure on hospitals to care for people who have had knee surgery as outpatients. Remember, the surgeries still are being done in hospitals and the postoperative care is essentially the same. But Medicare’s payment is lower.

Some hospital [critics say there is a second, more self-serving reason](#) why hospitals treat patients in observation instead of admitting them: to avoid readmission penalties. In recent years, Medicare has been cutting payments to hospitals that readmit certain patients within 30 days. But if a patient is under observation, the penalties don’t apply. The Medicare Payment Advisory Commission (MedPAC), which advises Congress on Medicare issues, [says this is not an issue](#). That [argument will continue](#).

But one thing is beyond dispute: Observation has major consequences for patients. It is not usually about the care they get—[most research](#) (though [not all](#)) suggests that treatment under observation is roughly as good as for an admitted patient. It is about their finances.

Skilled nursing care. Medicare pays for an admitted patient under Part A hospital insurance. But an observation patient is treated under Part B rules. Thus, *an observation patient may have to pay as much as 20 percent of the costs of her stay* (if she has it, Medicare Supplemental (Medigap) insurance may pick this up). But the real time bomb goes off after discharge. If an observation patient needs skilled nursing facility (SNF) care, Medicare won’t pay. The key is something called the three-day rule. If a Medicare recipient is *admitted* to a hospital for three days, Medicare will fully pay for post-discharge SNF care for up to 20 days, and partially pay for an additional 80 days.

But the key word here is “admitted.” Thus, even if an observation patient stays in a hospital for three days, Medicare will not pay for her skilled nursing care. Not a dime. Thus the patient must pay all her skilled nursing facility (SNF) costs.

Avoiding sticker shock. The result, as Medicare hoped, SNF stays have declined in recent years as observation has increased. The consulting firm [Avalere Health calculates](#) that SNF days per Medicare enrollee fell 15 percent from 2009 to 2016.

What can hospitals do about this sticker shock? To start, they need to do a better job explaining to patients and their families what observation means, both in the hospital and after discharge. Most observation patients get a Medicare form called a [Medicare Outpatient Observation Notice \(MOON\)](#). But that isn't enough. What can patients do? Demand a clear explanation, while they are in the hospital, of their status. If they feel they should be admitted, appeal. And plan for what to do if Medicare will not pay for skilled nursing facility care.

https://www.forbes.com/sites/howardgleckman/2019/01/02/understanding-medicare-observation-status/?utm_source=FBPAGE&utm_medium=social&utm_content=2061154966&utm_campaign=sprinklrForbesMainFB&fbclid=IwAR3y7ONDG7ELxw9ohMAoXIK5zZvJu6GAwdmwQzMFOVine4R_ldXZQtXaLBY#52fd84227876

[On the topic of Anesthesia Warning Information](#) (1/13/2019)

When having anesthesia, make sure you give the information about Polio survivors to the Anesthesiologist/Anesthetist, not just to the surgeon.

The updated information is in the [Encyclopedia of Polio and PPS](#) under BOTH **Anesthesia and Surgery and Anesthesia**.

[On the topic of Home Health Services and Medicare](#) (1/15/2019)

What **Home Health Services** are covered by Medicare?

[Medicare Part A \(Hospital Insurance\)](#) and/or [Medicare Part B \(Medical Insurance\)](#) cover eligible home health services if you meet all of these conditions:

- You must be under the care of a doctor, and you must be getting services under a plan of care created and reviewed regularly by a doctor.
- You must need, and a doctor must certify that you need, one or more of these:
 - Intermittent skilled nursing care (other than drawing blood)
 - Physical therapy, speech-language pathology, or continued occupational therapy services. These services are covered only when the services are specific, safe, and an effective treatment for your condition. The amount, frequency, and time period of the services needs to be reasonable, and they need to be complex or only qualified therapists can do them safely and effectively.
 - To be eligible, either: 1) your condition must be expected to improve in a reasonable and generally predictable period of time, or 2) you need a skilled therapist to safely and effectively make a maintenance program for your condition, or 3) you need a skilled therapist to safely and effectively do maintenance therapy for your condition.
- The home health agency caring for you is approved by Medicare (Medicare certified).
- You must be homebound, and a doctor must certify that you're [homebound](#) .

You're not eligible for the home health benefit if you need more than [part-time or "intermittent" skilled nursing care](#).

Eligible home health services **do include:**

- Part-time or intermittent skilled nursing care
- Part-time or intermittent home health aide care
- Physical therapy & Occupational therapy
- Speech-language pathology services
- Medical social services

Home health services may also include medical supplies for use at home, [durable medical equipment](#), or injectable osteoporosis drugs.

Medicare **does NOT** pay for:

- 24-hour-a-day care at home
- Meals delivered to your home
- Custodial or personal care (help bathing, dressing, and using the bathroom) when this is the only care you need
- [Homemaker services](#)

Your costs in Original Medicare

- You pay nothing for all covered home health visits.
- You pay 20% of the [Medicare-approved amount](#) , and the Part B [deductible](#) applies, for Medicare-covered medical equipment.

To find out how much your test, item, or service will cost, talk to your doctor or health care provider. The specific amount you'll owe may depend on several things, like:

- Other insurance you may have
- How much your doctor charges
- Whether your doctor accepts assignment
- The type of facility
- Where you get your test, item, or service

Your doctor or other health care provider may recommend you get services more often than Medicare covers. Or, they may recommend services that Medicare doesn't cover. If this happens, you may have to pay some or all of the costs. Ask questions so you understand why your doctor is recommending certain services and whether Medicare will pay for them.

If you get services from a home health agency in Florida, Illinois, Massachusetts, Michigan, or Texas, you may be affected by a Medicare demonstration program. Under this demonstration, your home health agency, or you, may submit a request for pre-claim review of coverage for home health services to Medicare. This helps you and the home health agency know earlier in the process if Medicare is likely to cover the services. Medicare will review the information and cover the services if the services are medically necessary and meet Medicare requirements. Your Medicare home health benefits aren't changing and your access to home health services shouldn't be delayed by the pre-claim review process. For more information, call us at 1-800-MEDICARE.

Things to know before you start getting your home health care. The home health agency should tell you how much Medicare will pay. The agency should also tell you if any items or services they give you aren't covered by Medicare, and how much you'll have to pay for them. This should be explained by both talking with you and in writing. The home health agency should give you a notice called the "[Advance Beneficiary Notice of Noncoverage](#)" (ABN) before giving you services and supplies that Medicare doesn't cover.

You may leave home for medical treatment or short, infrequent absences for non-medical reasons, like attending religious services. You can still get home health care if you attend adult day care.

The Complete Article is Available at:

<https://www.medicare.gov/coverage/home-health-services?fbclid=IwAR3XTO5LyLIPRgPTVclGX5PeWuUvNEgraPHUSDZfY4u4cCLXNeCNojE2-b8>

[On the topic of Muscle Pain](#) (1/16/2019)

Dr. Bruno's Original Post: MUSCLE PAIN: Is it Cramps, Spasticity or Spasm?

There are often Coffee House questions about muscle pain and medications. Doctors often confuse muscle cramps, spasticity and spasm, which leads to prescribing the wrong treatment.

Here's a primer on what's what and the treatments for each...

RULE #1: Diagnose the RIGHT CONDITION and treat its CAUSE, not PAIN, first. (Always tell your doctor what medications you're taking and ask about side effects before accepting a new drug.)

CRAMPS, SPASTICITY or SPASM?

CRAMPS are due to painful shortening of a muscle caused by overuse, muscle fatigue, dehydration or electrolyte abnormalities.

Rx? None. Gentle stretching, replace fluids and electrolytes

SPASTICITY is an increase in muscle tone that causes resistance to limb movement due to the brain not "turning off" a muscle.

Rx?

- Note: Gabapentin and Lyrica decrease sensory nerve firing to treat nerve pain that can be related to a nerve injury that causes spasticity. These drugs act on the brain and can cause sedation and other "central" side effects.

SPASM is the active contraction of a muscle due to nerve irritation, injury or overuse.

Rx?

- Gabapentin and Lyrica decrease sensory nerve firing to treat nerve pain that can be related to the nerve injury that causes spasm.
- Baclofen is often prescribed but is not specific for spasm and can cause sedation and other "central" side effects.
- Skelaxin (metaxalone) and Zanaflex (tizanidine) are newer drugs, potent, but also expensive and can be very sedating.
- Flexeril (cyclobenzaprine), Robaxin and Soma are old drugs, are cheap but don't work very well and also cause sedation at doses needed to treat spasm.
- Valium (diazepam) and the "...am" drugs: Valium (diazepam) is still the go-to drug, acting in the spinal cord to turn muscle spasms off.
 - > Alprazolam is taken 30 minutes before bed for nighttime muscle twitching.
 - > Clonazepam is taken 30 minutes before eating to stop esophagus spasms when swallowing.

See <https://www.drugs.com/condition/muscle-spasm.html> for more information.

There are more articles on this topic in the [Muscle Pain/Weakness](#) section of the **ENCYCLOPEDIA of POLIO & PPS**.

On the topic of Anesthesia for Minor Surgery (1/18/2019)

Original Post: I have to have surgery on my eyelid. They want to give me local anesthesia. When I have local anesthesia for dentistry it wears off very quickly. Will it do the same with the eyelid? Why does this happen to polio survivors? Last time I had dental work done, they had to do a nerve block because the novocaine kept wearing off.

Dr. Bruno's Response: In our first research study of polio survivors we found that they were twice as sensitive to pain as people didn't have polio. The poliovirus killed off the neurons that generate the body's own morphine.

A lack of effectiveness of typical doses of local anesthetic, and the anesthetic wearing off too quickly, are typical in polio survivors. If your doctor uses Xylocaine 1%, ask for Marcaine 2% instead. Look under "Anesthesia" in the articles section of the [Encyclopedia of Polio and PPS](#).

[On the topic of Post-Polio Syndrome being “terminal”](#) (1/23/2019)

Original Post: Is PPS considered a terminal disease?

Dr. Bruno's Response: PPS is NEVER terminal. As I always say, "Polio survivors never die. They just limp away."

[On the topic of the 2018 Webinar with Dr. Bruno](#) (1/24/2018)

Original Post: We are happy to announce the availability of the webinar with Dr. Richard Bruno in two formats, the short Dr. "B" only talk AND the entire presentation.

Check out this webcast (and others) on the [video page](#) of the Encyclopedia Of Polio & PPS. In addition, there are direct links to his entire inventory of updated articles, his Books, Bruno Bytes and the complete Encyclopedia of Polio and PPS Index.

- The direct link to Dr. Bruno's [entire inventory of updated articles](#) the Encyclopedia of Polio and PPS is also available on Dr. Bruno's website: <http://www.postpolioinfo.com>
- The Biography of Dr. Richard L. Bruno, HD, PhD is easily accessed any time you see his name in "RED". This is important when sharing the information with your health care providers.

[On the topic of Treating for Thyroid Issues](#) (1/24/2019)

Dr. Bruno's original post: The rule in polio survivors is that "barely abnormal" blood work findings -- "barely low" (e.g., T3/T4 thyroid hormones and anemia markers) or "barely high" (e.g., TSH=thyroid stimulating hormone) -- should be treated while they would not be treated in non-polio survivors.

[On the topic of Stem Cells and IVIG for PPS](#) (1/25/2019)

Original Post: I have lost the use of my polio leg. I have been lucky not needing any aids, need a cane now. Has anyone tried stem cells or IVIg to treat PPS?

Dr. Bruno's Response: Stem Cells and IVIg. Once again, questions are coming up about these two "Non-traditional" Treatments for PPS. Check out the [Encyclopedia of Polio and PPS Articles Section: Treatment \(Non-Traditional\)](#).

In addition you can go to the Encyclopedia of Polio and PPS [Index By Subject](#). (There is a direct "link" from the [Encyclopedia Main Page](#)). Once you have opened up the Index you can hit "Control F". Enter stem cells or IVIG in the search box that comes up. Encyclopedia and Bruno Bytes comments/article references will come up.

[On the topic of PPS Fatigue](#) (1/28/2019)

Original Post: Somedays I overdo it and have no pain, other days I take it easy and suffer the next day. What's up?

Dr. Bruno's Response: Remember "The 48 HOUR RULE:" Polio survivors can often beat themselves up on a Saturday, feel fine on Sunday and crash on Monday. The best way to avoid pain and fatigue?

Don't do things that cause them. "Conserve to Preserve" remaining, poliovirus-damaged neurons is the treatment for PPS.

You can find the "cause" of pain and fatigue by monitoring your activities with the [Post-Polio Fatigue Log](#) in the Articles section of the Encyclopedia.

Additional Bruno "Bytes" are available for you to share in the Encyclopedia of Polio and Post-Polio Sequelae.
Go to: <http://www.papolionetwork.org/bruno-bytes.html>
Scroll down the page (through the Current Month posts).

Previous months are located there, in easily printable PDF format and are available by "clicking" on them,
Would you like to see Dr. Bruno in "action"? Check out the [Video Library](#).
Looking for a particular topic? Check out the Bruno Bytes [Index by Subject](#)"