



Management

Best Practices – Patient Flow – Federal Regulations – Accreditation

See new CME/CNE procedures on page 48

April 2011: Vol. 23, No. 4
Pages 37-48

IN THIS ISSUE

- Consider the untapped potential of PT coverage in the ED cover
- Things to consider before starting your PT program 40
- Boost triage capacity and slash your LWBS rate 40
- Posted ED wait times: There may be an added advantage for some multi-facility health systems 41
- Is it time re-think pre-hospital IV fluids for trauma patients? Experts say EDs have a role to play in this debate. 43
- How will payers view low-acuity ED patients? 43

Financial Disclosure:

Author **Dorothy Brooks**, Managing Editor **Leslie Hamlin**, Executive Editor **Shelly Morrow Mark**, and Nurse Planner **Diana S. Contino** report no consultant, stockholder, speaker's bureau, research, or other financial relationships with companies having ties to this field of study. Executive Editor **James J. Augustine** discloses he is a stockholder in EMP Holdings. **Caral Edelberg**, guest columnist, discloses that she is a stockholder in Edelberg Compliance Associates.

EDs find physical therapists are an underused asset for musculoskeletal injuries, patient education

Benefits can include a boost in patient satisfaction, better resource allocation

Physical therapists (PTs) are carving a niche for themselves in a small but growing number of EDs. They're doing everything from splinting fractures and taking care of wounds to evaluating cases of low back pain to helping patients with musculoskeletal injuries learn how to use assistive devices.

While there are few data gathered to document the value or impact of adding regular PT coverage in the emergency setting, the handful of EDs reached by *ED Management* that have such coverage certainly don't want to give it up. For instance, Flagstaff Medical Center in Flagstaff, AZ, started putting PTs in its ED in 2004, and now it offers such coverage seven days a week during the unit's busiest hours, between 11am and 7:30pm.

"I don't think we could survive without them anymore," stresses **Lindy Turley**, RN, BSN, CEN, the director of emergency services at Flagstaff

EXECUTIVE SUMMARY

Some EDs are finding that the unique skill sets offered by physical therapists (PT) can be an asset to emergency care while also improving the patient experience. Experts say PTs are particularly valuable in the management of musculoskeletal pain and injuries, but they are also being used for wound care, gait training, and balance assessment.

- ED administrators say consistent, daily coverage is essential to making a PT program successful; otherwise, ED clinicians will neglect to use their services.
- PTs need to be comfortable with proactively marketing their skills to other ED clinicians who may not be used to having access to this resource.
- Experts say PT services in the ED can be reimbursed at a level that is consistent with reimbursement in other inpatient and outpatient settings.



NOW AVAILABLE ONLINE! Go to www.ahcmedia.com/online.html.
Call (800) 888-3912 for details.

Medical Center in Flagstaff, AZ. “They are such an integral part of our team that it is unfortunate that all EDs don’t have them.”

These sentiments are echoed by the ED staff at Carondelet St. Joseph’s Hospital in Tucson, AZ, where PTs have been providing care in the ED since 1998. **Carleen Jogodka**, PT, DPT, a board-certified orthopedic specialist, has been manning

ED Management® (ISSN 1044-9167) is published monthly by AHC Media, a division of Thompson Media Group LLC, 3525 Piedmont Road, N.E., Six Piedmont Center, Suite 400, Atlanta, GA 30305. Telephone: (404) 262-7436. Periodicals Postage Paid at Atlanta, GA 30304 and at additional mailing offices.

POSTMASTER: Send address changes to **ED Management**®, P.O. Box 105109, Atlanta, GA 30348.

AHC Media is accredited as a provider of continuing nursing education by the American Nurses Credentialing Center’s Commission on Accreditation.

This activity has been approved for 12.5 nursing contact hours using a 60-minute contact hour.

Provider approved by the California Board of Registered Nursing, Provider #14749, for 12.5 Contact Hours.

AHC Media is accredited by the Accreditation Council for Continuing Medical Education to provide continuing medical education for physicians.

AHC Media designates this enduring material for a maximum of 15 *AMA PRA Category 1 Credits*™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

Approved by the American College of Emergency Physicians for 18 hours of ACEP Category 1 credit.

This activity is intended for emergency physicians, ED nurses, and other clinicians. It is in effect for 24 months from the date of the publication.

Subscriber Information

Customer Service: (800) 688-2421 or fax (800) 284-3291 (customerservice@ahcmedia.com). Hours of operation: 8:30 a.m.-6 p.m. Monday-Thursday; 8:30 a.m.-4:30 p.m. Friday, EST. Subscription rates: U.S.A., one year (12 issues), \$499. Add \$17.95 for shipping & handling. Outside U.S., add \$30 per year, total prepaid in U.S. funds. Discounts are available for group subscriptions, multiple copies, site-licenses or electronic distribution. For pricing information, call Tria Kreutzer at 404-262-5482. Missing issues will be fulfilled by customer service free of charge when contacted within 1 month of the missing issue date. Back issues, when available, are \$82 each. (GST registration number R128870672.)

Photocopying: No part of this newsletter may be reproduced in any form or incorporated into any information retrieval system without the written permission of the copyright owner. For reprint permission, please contact AHC Media. Address: P.O. Box 105109, Atlanta, GA 30348. Telephone: (800) 688-2421, ext. 5491. Fax: (800) 284-3291. World Wide Web: <http://www.ahcmedia.com>.

Opinions expressed are not necessarily those of this publication.

Mention of products or services does not constitute endorsement. Clinical, legal, tax, and other comments are offered for general guidance only; professional counsel should be sought for specific situations.

Editor: **Dorothy Brooks** (dobr@bellsouth.net).

Executive Editor: **Shelly Morrow Mark**

(352) 351-2587 (shelly.mark@ahcmedia.com).

Managing Editor: **Leslie Hamlin**

(404) 262-5416 (leslie.hamlin@ahcmedia.com).

Editorial Questions

For questions or comments, call **Leslie Hamlin**, (404) 262-5416.

Copyright © 2011 by AHC Media. ED Management® is a registered trademark of AHC Media. The trademark ED Management® is used herein under license. All rights reserved.

AHC Media

the ED at Carondelet for the past seven years, but when she was recently out for maternity leave, the ED physicians were not happy. “It really throws them for a loop when we are not there,” says Jogodka. “They have become dependent on bringing us in on cases.”

Given the high percentage of ED cases that involve musculoskeletal complaints, proponents of putting PTs in the ED stress that they can improve patient care, boost patient and physician satisfaction, and move to a more efficient use of hospital resources, such as imaging, for example. But they also emphasize that not all PTs are ideally suited to work in the ED, and that effective use of PT resources requires ongoing education and outreach to the clinical staff. (*See initial steps for starting a PT program in the ED, p. 40.*)

Improve the patient experience

Michael Lebec, PT, PhD, an assistant professor of physical therapy at Northern Arizona University in Flagstaff, is working with colleagues to assemble data and information about using PTs in the ED so that more programs will be developed. Lebec, who worked in Carondelet’s ED before turning his attention to academics, is convinced that many EDs could reap significant benefits from making use of the specialized expertise that PTs offer.

“Usually when patients come in with an orthopedic or musculoskeletal problem ... they will typically receive meds from the physician and get a few X-rays to make sure there is nothing that is seriously wrong,” says Lebec. “The PT can come in and give them a more specific diagnosis, tell them what they should and should not be doing at work, show them exercises they can do to help manage their problem independently, and give them a whole bunch of education that they don’t normally get.”

The result of this more comprehensive approach to care is that patients are less likely to need a repeat visit, and they are much more satisfied with their care, stresses Lebec. “Typically in the ED, patient satisfaction is abysmal because patients wait a really long time and they feel like they don’t get much treatment for what they are there for,” says Lebec. “When a PT is involved, they feel like they are getting more for the time they are spending there and, in some cases, the PT can actually improve throughput and decrease wait times.” The result, stresses Lebec, is a much better experience for the patient, which is what all EDs strive for, he says.

Further, there is a financial case for putting PTs in the ED, adds Lebec. “What we are finding is that in most cases PT services are being reimbursed just as well, if not better, in the ED as in all other inpatient or outpatient settings,” says Lebec. “So you’re getting paid, and you’re making a profit for the services provided.”

Consider the benefits of patient education

Methodist Hospital in Indianapolis, IN, has been using PTs in the ED for eight years, explains **Lindsay Anderson**, MSN, ACNP-BC, who is a member of the trauma team at Methodist. “We use the PTs often to splint fractures when the traumas arrive to the trauma bay,” she says. In addition, PTs often provide gait training, balance assessment, and they also work with patients on pain control, adds Anderson. “They can do electrical stimulation, they can do ice, and they can use tape.”

A PT is on staff in the ED from 9am to 9pm every day, says Anderson, and she emphasizes that there is no pushback to the approach from other clinicians; quite the contrary. “We really like it. Our patients get a lot of education, and they know what to do when they leave the hospital,” she says.

The patient education component is an important aspect of what PTs bring to the emergency setting, adds **Lisa TenBarge**, PT, DPT, who is largely responsible for implementing the PT program in Flagstaff Medical Center’s ED. “The people who come to the ED, 25% to 28% of them have musculoskeletal injuries, and that is our area of expertise,” stresses TenBarge. “We are looking at what are going to be the barriers to getting patients back to their normal function. That is a little bit different than what you normally see in the ED, which is to get them stabilized and send them on their way.”

However, TenBarge points out that most PTs are not accustomed to working in emergency settings, so finding good candidates for an ED program can be difficult. “The PTs who work in outpatient clinics are used to seeing patients who can walk and talk,” she says. “We are used to seeing patients who can’t get up off of a stretcher, so it is a different level of acuity than most PTs are used to dealing with.”

Establish a designated place for PTs

In addition, the PTs who are most successful in an ED setting are those who are able and willing to con-

tinually make sure the other clinicians understand what they have to offer, stresses **Lori Pearlmutter**, PT, MPH, the director of therapy services at Flagstaff Medical Center. “The PT working in the ED needs to do constant marketing, and not a lot of people like to do that,” she says. “They also need to communicate to patients that physical therapy is something they can refuse, but point out what benefits it provides as well.”

Such skills are particularly important in teaching hospitals where there is a constant rotation of new clinicians in and out of the ED who may have no experience in working alongside PTs, says TenBarge. However, she emphasizes that once you establish relationships with the clinicians on staff, they can turn into your most ardent advocates. “The clinicians I have been working with for seven years know very well how to use me,” she says. “The physicians know we are going to spend more time with their patient, talking about their problem and how to manage it, and it allows them to really focus on the higher-acuity patients who are way outside our realm.”

It helps to have regular visibility in the ED. For example, for the past two years, Jogodka has had a desk adjacent to where the psychiatric assessment team and case management are stationed. “Clinicians know where they can find us,” says Jogodka.

It is also important to have regular PT coverage throughout the ED’s busiest times, adds Turley. While it won’t make sense for most EDs to have PTs on staff around the clock, consistent, daily coverage is nonetheless critical, she says. “If you don’t have PT coverage for a couple of weeks, then the clinicians will forget to use them when the PTs are there,” says Turley. “Have a designated spot and a designated staff that [clinicians] can work with as much as possible.” ■

Editorial note: Lebec, TenBarge, and colleagues have been working to assemble a toolkit for those interested in starting a PT program in their ED. They anticipate that the materials will be made available through the American Physical Therapy Association website by this spring. The web site address is: www.apta.org.

SOURCE

Michael Lebec, PT, PhD, Assistant Professor of Physical Therapy, Northern Arizona University, Flagstaff. E-mail: lebec@nau.edu.

Interested in starting a PT program in your ED?

Take these initial steps to improve your chances of success

Analyze the types of patients who typically come through your doors. Most EDs see a significant percentage of patients with musculoskeletal issues, which is an area of expertise for PTs, but check what the patterns are in your department, and determine what hours of the day are optimal for PT coverage.

Currently, there are no formal training programs to prepare PTs to work in an emergency setting, so determine how you intend to equip PTs with the knowledge and experience to contribute to emergency care and enhance the patient experience.

Arm yourself with knowledge about the unique skill sets that PTs can bring to an ED, and use this knowledge to educate administrators and physicians about the potential benefits that PTs can offer. Constant outreach is essential to making a PT program useful and effective.

Once you establish a PT program in the ED, make sure the coverage is consistent and reliable. Otherwise, clinicians are unlikely to make a habit out of calling PTs in on cases in which they can contribute to care.

When considering candidates to serve as PTs in the ED, look for flexibility and an ability to make quick decisions in a fast-paced setting. Most PTs are accustomed to predictable schedules, but that is not how it works in the ED, where they may see as many as 20 patients one day and as few as three the next. ■

SOURCE

Michael Lebec, PT, PhD, Assistant Professor of Physical Therapy at Northern Arizona University in Flagstaff.
E-mail: lebec@nau.edu.

Boost capacity, slash LWBS rate with POD triage system

Approach frees up beds, expedites patient flow

With volume on the increase and a leave-without-being-seen (LWBS) rate already at 5%, ED administrators at Methodist Hospital of Sacramento in Sacramento, CA, knew they needed to come up with a way to get patients moved through the ED more expeditiously — at least until a planned expansion of the ED took place, but in early 2008, that was still more than a year away.

“We were in an ED that was seeing close to 48,000 patients each year, and we were functioning out of a nine-bed ED with six [additional] fast-track beds at the time, and only one triage nurse,” explains **Tris Rieland**, MD, medical director of the ED at Methodist Hospital. “When you have ten people signing in [to the ED to be treated] and there is only one person who they are being funneled through, that is going to create a bottleneck.”

Concluding that more triage capacity was needed, administrators decided to take the six fast-track beds offline and turn them into triage beds, says Rieland, noting that under this “POD triage” approach, patients would be brought to a bed for triage soon after they walked in the door. Further, while there was no change made to physician staffing, there were some adjustments made on the nursing side.

“We increased staffing with a triage nurse and added a task nurse who managed the flow of the triage pod,” explains **Cindy Myas**, RN, director of the ED at Methodist Hospital.

Despite such adjustments, Rieland admits he was skeptical that turning over six of his 15 beds to triage would be helpful, but the approach worked remarkably well.

EXECUTIVE SUMMARY

With bottlenecks boosting ED wait times as well as the LWBS rate, Methodist Hospital of Sacramento decided to boost its triage capacity by taking over six beds that were being used for fast-track patients, and by taking advantage of waiting-room space for patients who don't need to be placed in beds.

- Within a month of implementing the new approach, the LWBS rate dropped to less than 2%, and door-to-doc time was slashed by 20 minutes.
- Under the POD system, providers have 15 minutes to determine whether patients should be discharged, sent back to the waiting room while tests are conducted, or placed in an ED bed where they can be monitored.
- To implement the approach, no alterations in physician staffing were needed, but the hospital added a triage nurse and a task nurse to manage patient flow of the triage POD.

“Within a month it made our waiting room a ghost town in the sense that no one was really ever waiting to be seen,” says Rieland. The LWBS rate dropped below 2%, and the door-to-doc time was trimmed from 50 minutes to 30 minutes, adds Myas.

Quick decisions keep patients moving

There is more to the “POD triage” model than just adding triage beds. The system governing how the beds are used keeps patients moving through the system, explains Rieland. For example, when patients are brought back to a triage bed, the clock starts ticking down a 15-minute period during which one of three decisions must be made by the treating providers: They can either discharge the patient with a prescription or some other recommended course of treatment; they can order lab tests or X-rays and, then, if the patient is stable, send him back out to the waiting room while the tests are completed; or if a patient is sick and needs to be placed on a cardiac monitor or hooked up to IV fluids, he can be sent to a bed in the main ED.

Transitioning to such a system requires a “cultural shift in thinking” from both the physicians and the nurses, adds Rieland. In particular, clinicians have to get used to the idea that not all patients have to be in beds when they are assessed and treated. “We call it keeping them vertical for most of their ED stay,” he says.

Initially, there was some pushback to the idea from both physicians and nurses. One of the stumbling blocks had to do with the question of what should be done with patients who are placed on IV fluids. “The group came to the consensus that if patients need IV medications, we are not going to send them back out to the waiting room,” says Rieland. “We will give them oral medicines and maybe an intramuscular shot to make them comfortable, but we will not put an IV in and send them back out to the waiting room,” he says.

Encourage input

Such issues can be resolved, but they require a collaborative approach that invites input and discussion, stresses Rieland. “When we designed this we had meetings for up to two months prior to the time when we first went through the whole process,” he says. “We got nurses, mid-levels, and physicians involved in the process.”

Myas agrees that it is important to get as many staff involved in the planning stages as possible, but she stresses that you also need to consider your

geographic layout when designing any new system changes. In fact, geography became an issue when the hospital opened a new waiting room in January of this year as part of a four-phase expansion of the ED.

“Because of the way the waiting room is currently situated in the department, we don’t have six beds in close enough proximity to walk the patients straight back [for triage],” says Rieland. “It doesn’t quite fit our flow model.”

As result, the ED is temporarily switching back to its old triage model until it regains access to six nearby beds in about six months. Then it will transition back to the POD triage system, says Rieland. ■

Management Tip

Get staff involved with decision-making

Approaching change in an inclusive way can not only create ownership of the new process, it also nurtures camaraderie and a team mentality, says **Tris Rieland**, MD, medical director of the ED at Methodist Hospital of Sacramento in Sacramento, CA.

This way, when nurses or physicians complain about some aspect of the new approach, these gripes get dismissed pretty quickly by the rest of the staff if the complainants haven’t participated in the process, he says.

“If they’ve got a problem, it is okay, but they come to realize that they need to show up at a meeting to get it fixed rather than voicing it on the floor.” ■

Posted wait times an added advantage to multi-facility systems?

Impact on load-balancing to be studied by system

Given that patients are keenly interested in wait times, an increasing number of EDs across the country are taking advantage of new

media to make this information more accessible to the public.

For example, many EDs enable consumers to access wait times online or via text on their cell phones along with a promise that patients will be seen quickly. When done well, such a strategy can boost volume, as well as patient satisfaction, but for health-care systems that operate multiple EDs in a given metro area, it also offers the potential advantage of directing patients to the least busy EDs so that bottlenecks are avoided and patient flow is evened out across the system.

With six adult EDs and one pediatric ED operating in the same region, Memphis, TN-based Methodist Le Bonheur Healthcare is uniquely situated to reap some gains in efficiency from the posting of ED wait times, which the health system began doing in August of 2010, explains **David Cummings**, RN, CEN, corporate administrator, patient care operations, at Methodist Le Bonheur Healthcare. (*See story on question for the future in how payers will view low-acuity patients in the ED, p. 43.*)

“That is why we are looking at our arrivals by zip code to see if there is some load balancing of non-acute patients,” says Cummings. “Our EDs are very strategically located in different quadrants of the city, so one of the things we are looking at is to see if there is a shift. People from one zip code might go to a different hospital based on wait times. There is nothing out there really published on this, so we will probably do a case study about our experience. We are trying to look at it fairly scientifically.”

In addition to mapping arrival by zip code, Cummings says the hospital will also be tracking

EXECUTIVE SUMMARY

Methodist Le Bonheur Healthcare in Memphis, TN, is investigating whether posting ED wait times via the internet can positively impact patient flow in the six EDs the health system operates in the Memphis region. The health system began posting wait times in August 2010, resulting in increases in ED volume ranging from 6% to 10%.

- The health system is monitoring ED arrivals by zip code to assess any impact on load balancing between its busy EDs.
- One marketing challenge is that a competitor is posting ED wait times as well, but it is posting the time it takes for a patient to be placed in a bed as opposed to the door-to-provider time that Methodist Le Bonheur is posting.
- The approach has the most impact on lower-acuity patients, but experts worry that in the future, payers may not be reimbursed for ED care for these patients.

market share by payer mix to see if the posted wait times are linked to any changes.

While the impact on load balancing has yet to be determined, one result is already clear: Since the hospital began posting ED wait times at all of its adult hospitals, volume is up by 6% to 10%, says Cummings. Despite the increases, the leave-without-being-seen (LWBS) rate ranges from just 1% to 2.1%. “We have very good processes in place and good throughout upstairs, so we have the capacity to see more patients in an efficient way,” adds Cummings.

Get your house in order

It is clear that posting ED wait times can be a good way to win business, but it is important to have your house in order first, emphasizes **Marty Carr**, MD, the medical director for the health system’s emergency departments. “A couple of years ago, we undertook a project to make all of our EDs more efficient, and to get people in and out faster,” he says, noting that the initial goal was to get people seen by a provider within 30 minutes of arrival. “Everybody thought that was pretty insane at first, but we time stamp everything [through our EMR], and we can follow the process and see where problems are. We did that, and times started to come down.”

With such improvements in place, it was a not big deal to the clinical staff to post the wait times online. “It doesn’t change our wait times. It just makes them more available to the public,” stresses Carr. “We were already good, and this just shows what we do.”

At press time, two of the health system’s EDs were offering guarantees that patients would be seen by a provider within 30 minutes of arrival, and the remaining EDs were expected to offer similar guarantees shortly, according to Cummings. However, he says the health system has no plans to post the wait times for its pediatric ED, which is part of the health system’s children’s hospital.

“We chose not to post our children’s ED wait times because we didn’t want people to be confused and maybe go to another ED when they really needed to go to the children’s center, even if the wait time is a little bit longer,” says Cummings. “We take care of kids at all of our EDs, but we really want our kids to go to our designated pediatric, level one trauma center hospital.”

Fortunately, since the EDs at Methodist Le Bonheur had already transitioned to an electronic medical record (EMR) by the time the posting of ED wait times was even discussed, there was no need for additional IT investments, explains

Cummings. The health system uses an EMR platform developed by Kansas City, MO-based Cerner Corporation, and Cummings had already worked with the health system's IT group to put mechanisms in place to regularly retrieve key performance measures from the EMR.

"Within the Cerner platform, we created a real-time dashboard for people on the front line to proactively manage the ED, and that development gave us the ability to publish the [ED wait time] data," says Cummings. "We had the ability to do this, and it happens automatically. The data get [refreshed] every two minutes."

Differing definitions a marketing challenge

Posting ED wait times makes sense from a marketing standpoint, to be sure, but Cummings stresses that the practice is also in line with the health system's mission and philosophy.

"Our organization is very big about transparency in our quality measures and quality metrics. We post many of our quality measures online already, so to try and continue that transparency ... we wanted to let the community know what they could expect from our EDs," adds Cummings, noting that many people assume that when they go to the ED, they are going to have to sit and wait. "We wanted to help dispel that myth, at least in our EDs, where our patients are seen by a provider in a room. They're not just sitting out in a waiting room."

In fact, one of the marketing challenges that Methodist Le Bonheur has run into is that now one competing health system is posting an ED wait time as well, but it is posting the wait time until a patient is placed in a bed as opposed to the time until a patient is seen by a physician, nurse practitioner, or physician assistant — the standard used by Methodist Le Bonheur, explains Cummings. "Patients aren't [in the ED] to get into a bed. They are there to see a provider, but I think [the competing hospital] saw the value of posting ED wait times, and they are responding to our campaign for a reason," he says.

The concern, says Cummings, is that patients may not discern the difference in the two standards being used to describe wait times. "They are not measuring the same thing that we are measuring, and the public probably doesn't know the difference," he acknowledges. "What we are publishing is the average door-to-provider time over the previous hour, but there are lots of ways you can play with the numbers." ■

SOURCE

David Cummings, RN, CEN, Corporate Administrator, Patient Care Operations, Methodist Le Bonheur Healthcare, Memphis, TN. Phone: (901) 516-2357. E-mail: cummingd@methodisthealth.org.

How will payers view low-acuity ED patients?

While faster throughput makes financial sense for EDs today, there is some concern that the type of lower-acuity patient most influenced by advertised wait times may not make financial sense in the future because payers may not be willing to pay for non-emergency care in such an expensive setting, explains **David Cummings**, RN, CEN, corporate administrator, patient care operations, at Methodist Le Bonheur Healthcare in Memphis, TN.

"Certainly we pride ourselves on a 30-minute guarantee to see a doctor, nurse practitioner, or physician assistant, but does that, in effect, further clog our ED because we are so efficient that patients would rather come here than go to an urgent care center?" queries Cummings. "That is a struggle we are having, or will be having shortly if payers say they're not going to pay for this."

To get around this dilemma, Cummings suspects that health systems may need to consider solutions like what Methodist Le Bonheur has done with the ED at its children's hospital. "We have an urgent care center just adjacent to the ED, and it sees about 85 patients per day," he says, noting that those patients get billed at the urgent care rate, not the ED rate. "That is something we will probably have to consider at our adult hospitals. Many hospitals are going to have to look at alternate forms of care for those lower-acuity patients who could just as easily be cared for in their PCP's [primary care physician] office." ■

New study: Time to rethink pre-hospital IV fluids in trauma

IV fluids can delay treatment, cause harm

There is mounting evidence in the literature that the routine practice by paramedics of administering

IV fluids to severely injured patients before they are transported to the hospital is not only unnecessary, but may also cause harm. In fact, new data from a large, retrospective study, using five years worth of information from the American College of Surgeons National Trauma Data Bank (NTDB), strongly suggest that this widespread practice should be discouraged (*see reference*).

While the issue is of prime concern to the state and regional agencies that govern and train emergency medical personnel, experts stress emergency department personnel have a strong role to play in changing a practice that has been a standard of care for decades despite a dearth of scientific evidence supporting its use.

“This is going to take a concerted effort from a lot of different groups. It is not going to be something that individuals can take on themselves and try to change one patient at a time,” stresses **Elliott Haut, MD, FACS**, the lead author of the study and an associate professor of surgery and anesthesiology, critical care medicine, at Johns Hopkins University School of Medicine in Baltimore, MD. “I think it needs to change at a big level.”

IV fluids delay transport

The study, published in the February 2011 issue of the *Annals of Surgery*, examined the care outcomes of 776,734 patients, approximately half of whom received IV fluids prior to transportation to the hospital. Researchers found that patients who received the IV fluids were 11% more likely to die than those who did not, and the impact was particularly notable among specific groups of patients:

- patients with head injuries were 35% more likely to die;
- patients who were shot or stabbed were 25% more likely to die; and
- patients who had emergency surgery after being hospitalized were 35% more likely to die.

Part of the problem, observes Haut, is that it takes time to administer IV fluids, and this delays transportation of the patient to the hospital. In fact, eliminating this step would actually take some complexity out of the process. “There are a lot of times when I wish the paramedics would just pick the patients up and bring them in, lights and sirens, as fast as they can with minimal intervention,” explains Haut, who is a practicing trauma surgeon. However, he stresses the study data suggest that it is not just about delayed treatment; the IV fluids may actually be causing harm in these patients as well.

While IV fluids are administered to raise blood pressure (BP), thereby keeping the body’s systems working, Haut explains that low BP can temporarily stop bleeding. Consequently, when a trauma patient’s BP rises rapidly, it can cause the patient to start bleeding again before he gets needed care in the hospital.

“We looked at this very large group in aggregate and found there is potential harm associated with [IV fluids], but I certainly think in some specific cases, IV fluids may be beneficial,” says Haut. If a patient has to travel a long distance to reach a trauma center, for example, it is possible that the IV fluids would provide some benefit, he says, although he did not study this issue.

ED physicians have a strong role

While emergency medical personnel communicate with ED staff while they are still in the field, much of what they do is protocol-driven, Haut emphasizes.

“Long gone are the days when they had to call in and ask for every intervention or every single medication that needs to be given before someone arrives,” he says. However, Haut adds that ED physicians often serve as medical directors of EMS agencies. Furthermore, in some cases, such as Maryland, for example, Haut points out that emergency medicine physicians actually run the emergency medical systems. This puts them in a prime position to influence the pre-hospital care of trauma patients.

“I do think they have a key role to play — not on an individual paramedic or EMT basis, but on a systems-level approach,” adds Haut.

Haut acknowledges that while his study has attracted attention, it will take time to change a

EXECUTIVE SUMMARY

New data strongly suggest that the routine practice of administering IV fluids in trauma patients before transport to the hospital may do more harm than good. The study’s lead author suggests that ED leaders have a strong role to play in changing a decades-old protocol that was implemented without sufficient scientific evidence.

- The retrospective study of 776,234 trauma patients found that patients who received pre-hospital IV fluids were 11% more likely to die than patients who did not receive fluids.
- Administration of IV fluids delays time to treatment and may exacerbate bleeding by raising blood pressures.
- There might be specific types of patients who would benefit from pre-hospital IV fluids, but the issue requires further study.

practice that is as well-established as the administration of IV fluids in the field. “I think it is prompting people to really discuss things and question the dogma of what we have been doing for a very long time, and why we have been doing it,” he says. “I am working with the people who run the EMSs throughout the state to try and change [the practice] in the pre-hospital setting.”

In the meantime, Haut is planning further studies to look at the issue in greater detail. For example, he is working with colleagues to essentially redo the study with data from both the NTDB and a large EMS database. In addition, he wants to look into the pre-hospital care of urban gunshot wound patients. “We are going to collect data from trauma centers throughout the country in different cities, and get information about that specific patient population,” he explains. “We are going to look not just at the question of IV fluids, but all the different procedures that get done for that patient population.” ■

REFERENCE

1. Haut E, Kalish B, Cotton B, et al. Prehospital intravenous fluid administration is associated with higher mortality in trauma patients: A national trauma data bank analysis. *Annals Surg* 2011;253:371-377.

SOURCE

For more information on pre-hospital IV administration, contact:

Elliott Haut, MD, FACS, Associate Professor of Surgery and Anesthesiology, Critical Care Medicine, Johns Hopkins University School of Medicine in Baltimore, MD. E-mail: ehaut1@jhmi.edu.

Management Tip

Before posting wait times, get clinical staff on board

If you're interested in making your ed wait times available to the public via the internet or text

messaging, make sure you take the time to get the clinical staff on board with the approach first, stresses **Marty Carr**, MD, the medical director for the EDs at Methodist Le Bonheur Healthcare in Memphis, TN.

“This is not something where you can walk up to the doctors and say you're going to do it,” says Carr. “Everybody's got to buy into it.”

Carr advises colleagues to do some internal measurements first so that you can spot areas in need of improvement and make adjustments before going live with the wait times. It also gives the staff time to adjust to the added stress that comes with posting performance metrics publicly.

David Cummings, RN, CEN, corporate administrator, patient care operations, at Methodist Le Bonheur Healthcare, says, “There is a lot of pressure on them to make sure we are as efficient as possible. All of our providers and staff really feel that pressure to quickly, efficiently, and safely see patients. And safety is the most important thing.” ■

Want to admit patient, but can't? Lawsuit may result

Ultimate responsibility is yours

This article originally appeared in the March 2011 issue of ED Legal Letter. It was written by Stacey Kusterbeck, edited by Larry Mellick, MD, MS, FAAP, FACEP, and reviewed by Kay Ball, RN, PhD, CNOR, FAAN. Stacey Kusterbeck, Larry Mellick, and Kay Ball report no financial relationships relevant to this field of study.

It may be in the best interest of your ED patient with chest pain, seizures, or transient ischemic attack (TIA) to be admitted, but this may not occur due to factors beyond your control.

Edward Monico, MD, JD, assistant professor in the section of emergency medicine at Yale University School of Medicine in New Haven, CT, says that the main problems EPs encounter when admitting a patient to the hospital involve lack of institutional resources such as specialty consultation, and lack of a willing inpatient service provider to accept responsibility for the care of the patient.

“Despite these obstacles, the ultimate responsibility for the disposition of an ED patient rests with the emergency physician,” says Monico. A patient

requiring admission for inpatient monitoring and/or treatment should receive inpatient monitoring and/or treatment, he explains, and the physician best situated to make that determination is the EP.

“Emergency physicians who acquiesce to a consultant’s request for office follow-up in lieu of necessary inpatient treatment, or succumb to the rationale of a hospitalist or private physician unwilling to provide required inpatient care, could be liable for harm realized if injury arose from an inappropriate discharge from the ED,” warns Monico.

To reduce legal risks, Monico gives these recommendations for EPs facing obstacles during the admission process:

1. Be prepared for this scenario.

“Institutional contingency plans should exist for when opinions differ as to whether a patient needs admission,” says Monico. “Admitting patients to a default physician until delineation of inpatient responsibility can be assigned is one option.”

Monico says that another option would be to call the administrator on-call to resolve the issue in real time.

2. Transfer the patient when appropriate.

Transferring a patient in need of specialty consultation to a “willing and able accepting hospital” capable of providing that consultation far outweighs discharging a patient from the ED when ED consultation is required, says Monico. “The need for the consultation and the reason for the transfer have to be documented and made known to the patient,” he adds.

3. Communicate with the patient.

“Patients have a right to know of problems that impact their health care, such as what underlies the need for transfer to another hospital,” says Monico.

4. Document your medical decision-making.

“Although actions speak louder than words, documentation of a physician’s thought process remains a fundamental risk management strategy in cases when other physicians pose obstacles to the emergency physician trying to abide by the standard of care,” says Monico.

Speak up for patients

EPs should never allow administrators to dictate admission criteria, underscores **Tom Scaletta**, MD, FAAEM, chair of the ED at Edward Hospital in Naperville, IL. “This is a form of a lay entity practicing medicine,” he says. “While they may cite utilization criteria, every patient is different in terms of their presentation, reliability, and willing-

ness to accept risk.”

EPs should avoid practice settings where they feel their job may be in jeopardy as a result of speaking up on behalf of their patients, adds Scaletta. “The ED medical director needs to advocate for patient care and staff rights,” he says.

Scaletta acknowledges that an EP who is a clear outlier regarding utilization may need to be “reeled in” by the director. However, he says, “Working under the direction of an unreasonable, reactive medical director that puts corporate interests above patient care precipitates lawsuits and burnout.”

Scaletta says that patients can be observed in the ED when they are not ready for discharge, while admission to another area of the hospital is not possible. “This is not ideal, since it contributes to ED overcrowding and spreads the ED staff thinner than it should be,” he notes.

Patients should be involved in “gray area” decisions regarding admission versus discharge, says Scaletta. Using the example of a TIA patient, Scaletta notes that in the lower-risk cases with an ABCD score less than five, stroke occurring in the next 24 hours is unlikely.¹

An informed patient may prefer to go home on aspirin, complete further testing as an outpatient, and return at the first sign of any worsening, says Scaletta.

“If family members are willing to observe such patients at home, there is usually no disadvantage as long as they rapidly return to the hospital should any neurological signs return,” says Scaletta.

No one to admit them to

John Burton, MD, chair of the Department of Emergency Medicine at Carilion Clinic in Roanoke, VA, says that, “TIAs remain problematic for EPs. It is a very challenging issue. The problem is that they can’t get anyone to admit those patients to the hospital.”

COMING IN FUTURE MONTHS

■ ED protocol slashes wait times, boosts efficiency

■ Problems with on-call coverage by specialist physicians

■ Using urgent care centers to decompress crowded EDs, lower costs

■ EDs need to do more to recognize victims of human trafficking

Although EPs and neurologists in large stroke centers will admit all TIA patients to the hospital, this often is not the case in community hospitals.

“ED physicians will generally agree with the data that says patients are at increased risk for having a stroke in the next couple of days,” says Burton. “But the neurologist won’t admit them, or even be available to see the patient. The hospitalists and intensivists will say there is nothing they can do for them.”

The EP is then put into the difficult position of being told by the literature to admit TIA patients, when there is no one to admit them to.

“What happens is an event where the TIA patient is discharged from the ED. Within a week, the patient returns with a substantial debilitating stroke,” says Burton. The plaintiff then argues that failure to admit and properly treat the TIA visit resulted in the subsequent stroke by neglect.

“What’s generally lost in the details is that there is often no clear management strategy or therapy for the TIA patient during hospitalization that could have prevented the stroke,” says Burton. “However, it just looks bad. Therefore, the compulsion to settle a case, or the threat of a case, is rather high.”

If EPs at your hospital are encountering this problem, you need to have a plan in advance for how you are going to handle it, advises Burton. Whether or not the TIA patients are going to be transferred to a stroke center, he explains, it’s important to have a dialogue about the care of these patients.

“Medicolegally, that is a good strategy. Your plan may be, ‘There is nothing we can do, and we just have to send those patients home.’ On the other hand, once you look at it, sometimes there is a hospital that will take the patients,” says Burton.

In this scenario, Burton recommends documenting in the medical record that you have spoken to the doctors on call for admission, and they are not agreeable to admitting the patient. Also document that you have arranged appropriate follow-up for the patient in the next few days, adds Burton, and told them when to return immediately to the ED.

“This isn’t meant to be inflammatory. You shouldn’t throw everybody else under the bus because they won’t admit the patient,” says Burton. “But be clear in your rationale, and realize there is some risk there, if there is a bad outcome.” ■

REFERENCE

1. Chandrathava A, Mehta Z, Geraghty OC, et al. Population-based study of risk and predictors of stroke in the first few hours after a TIA. *Neurology* 2009;72(22):1941-1947.

CNE/CME OBJECTIVES

1. Apply new information about various approaches to ED management.
2. Discuss how developments in the regulatory arena apply to the ED setting.
3. Implement managerial procedures suggested by your peers in the publication. ■

CNE/CME QUESTIONS

1. According to Lisa TenBarge, PT, DPT, a physical therapist at Flagstaff Medical Center’s ED, one of the reasons it can be difficult to find suitable PT candidates to work in the ED is:
A. the pay scale is not adequate.
B. there is a shortage of PTs.
C. there is often conflict between PTs and other clinicians.
D. PTs are not accustomed to the level of acuity involved with many ED cases.
2. Lori Pearlmutter, PT, MPH, the director of therapy services at Flagstaff Medical Center, indicates that the PTs who are most successful in the ED setting have what type of skills?
A. Good organizational skills
B. Good marketing skills
C. Technical proficiency
D. Clinical expertise
3. One of the primary benefits of the POD triage system used at Methodist Hospital of Sacramento is to:
A. give providers more time to treat patients.
B. free up nurses to monitor ED patients.
C. boost triage capacity.
D. improve quality care.
4. Posted ED wait times have the most influence on what type of patients?
A. Stroke and heart-attack patients
B. Low-acuity patients
C. Indigent patients
D. Pediatric patients
5. A new study, authored by Elliott Haut, MD, FACS, associate professor of surgery and anesthesiology, critical care medicine at Johns Hopkins University School of Medicine, suggests that the routine practice of administering pre-hospital IV fluids in trauma patients is actually harmful to patients. What are the contributing factors, according to Haut?
A. The time it takes to administer IV fluids delays transport

to the hospital.

B. The IV fluids raise blood pressure, which can contribute to bleeding.

C. Patients in shock can have an adverse reaction to IV fluids.

D. Answers A & B

6. IV fluid administration prior to transportation to the hospital mostly impacted patients:

A. with head injuries.

B. who were shot or stabbed.

C. who had emergency surgery before being hospitalized.

D. All of the above

CNE/CME INSTRUCTIONS

1. Read and study the activity, using the provided references for further research.

2. Log on to www.cmecity.com to take a post-test; tests can be taken after each issue or collectively at the end of the semester. *First-time users will have to register on the site using the 8-digit subscriber number printed on their mailing label, invoice, or renewal notice.*

3. Pass the online tests with a score of 100%; you will be allowed to answer the questions as many times as needed to achieve a score of 100%.

4. After successfully completing the last test of the semester, your browser will be automatically directed to the activity evaluation form, which you will submit online.

5. Once the evaluation is received, a credit letter will be sent to you. ■

To reproduce any part of this newsletter for promotional purposes, please contact Stephen Vance

Phone: (800) 688-2421, ext. 5511

Fax: (800) 284-3291

Email: stephen.vance@ahcmedia.com

To obtain information and pricing on group discounts, multiple copies, site-licenses, or electronic distribution please contact:

Tria Kreutzer

Phone: (800) 688-2421, ext. 5482

Fax: (800) 284-3291

Email: tria.kreutzer@ahcmedia.com

Address: AHC Media
3525 Piedmont Road, Bldg. 6, Ste. 400
Atlanta, GA 30305 USA

To reproduce any part of AHC newsletters for educational purposes, please contact The Copyright Clearance Center for permission

Email: info@copyright.com

Website: www.copyright.com

Phone: (978) 750-8400

Fax: (978) 646-8600

Address: Copyright Clearance Center
222 Rosewood Drive
Danvers, MA 01923 USA

EDITORIAL ADVISORY BOARD

Executive Editor: James J. Augustine, MD

Director of Clinical Operations, EMP Management
Canton, OH

Assistant Fire Chief and Medical Director
Washington, DC, Fire EMS

Clinical Associate Professor, Department of Emergency Medicine
Wright State University, Dayton, OH

Nancy Auer, MD, FACEP
Vice President for Medical
Affairs
Swedish Health Services
Seattle

Kay Ball, RN, PhD, CNOR, FAAN
Perioperative Consultant/
Educator
K & D Medical
Lewis Center, OH

Larry Bedard, MD, FACEP
Senior Partner
California Emergency
Physicians
President, Bedard and
Associates
Sausalito, CA

Robert A. Bitterman
MD, JD, FACEP
President
Bitterman Health Law
Consulting Group
Harbor Springs, MI

Richard Bukata, MD
Medical Director, ED, San
Gabriel (CA) Valley Medical
Center; Clinical Professor of
Emergency Medicine, Keck
School of Medicine,
University of Southern
California
Los Angeles

Diana S. Contino
RN, MBA, FAEN
Senior Manager, Healthcare
Deloitte Consulting LLP
Los Angeles

Caral Edelberg
CPC, CPMA, CAC, CCS-P, CHC
President
Edelberg Compliance
Associates
Baton Rouge, LA

Gregory L. Henry, MD, FACEP
Clinical Professor
Department of Emergency
Medicine
University of Michigan
Medical School
Risk Management Consultant
Emergency Physicians
Medical Group
Chief Executive Officer
Medical Practice Risk
Assessment Inc.
Ann Arbor, MI

Marty Karpel
MPA, FACHE, FHFMA
Emergency Services
Consultant
Karpel Consulting Group Inc.
Long Beach, CA

Thom A. Mayer, MD, FACEP
Chairman
Department of Emergency
Medicine
Fairfax Hospital
Falls Church, VA

Larry B. Mellick, MD, MS, FAAP, FACEP
Professor of Emergency
Medicine
Professor of Pediatrics
Department of Emergency
Medicine
Medical College of Georgia
Augusta

Robert B. Takla, MD, FACEP
Medical Director and Chair
Department of Emergency
Medicine
St. John Hospital and
Medical Center
Detroit

Michael J. Williams,
MPA/HSA
President
The Abaris Group
Walnut Creek, CA