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Viewpoint



'I'm as Mad as Hell, and I'm Not Going to Take This Anymore!'

By Peter Viccellio, MD

Emergency departments are in a crisis! says the Institute of Medicine report on the status of emergency medicine. How's this for proof? "A survey of one day's hospital activity ... showed 22 of 57 voluntary and municipal hospitals to be over 100 percent occupancy, with the remainder at greater than 90 percent occupancy. [A] total of 379 patients were compelled to remain in the emergency department overnight for lack of available inpatient beds."

Wow! We have a crisis! Problem is, I wrote this for the New York ACEP newsletter in 1987. In 1989, the *New York Post* ran an article entitled "Dying for a Hospital Bed," and considered the system doomed.

At www.hospitalovercrowding.com, you can read multiple news articles dating back to 1987, all declaring the system to be defunct. In a crisis. Something must be done.

This long history would suggest that the strategy of "somebody must do something" isn't exactly, well, working. Another "what's wrong" document, like the IOM report, needs a companion. What we need is a "what would be right" document. We need a road map. To construct the proper road map, we must entirely empty our minds of the current practice of emergency medicine, which historically has evolved from an underfunded, underresourced, unwelcome stepchild of the hospital to what now is the epicenter of medicine, at least in the view of a third of the United States who stopped by to say hello this year. If "the emergency department" were a new idea, what would it look like? Look at what needs to be accomplished, and build the road map from there. In short, we need to replace our now chronic sense of *urgency* with an acute sense of *direction*. To fix a system, one should first decide what the system needs to do.

Interestingly, where we've failed to fill this void, others have stepped in with great vigor. The neurologists, the cardiologists, the infectious disease specialists, the traumatologists, and the pulmonologists have no difficulty speaking on behalf of *our* patients. Get the CT and have it read in 20 minutes. On any patient with chest pain, get an EKG in 10 minutes. Treat that pneumonia within four hours. Treat that sepsis within three hours. And there you have it. That's what an emergency department should look like. It's not the structure. It's the function.

They make demands not just on us but on themselves as well. They certainly have to come in during off hours far more than they used to as a result of their own efforts (and I commend them for their good spirit in doing so). Good for them. They skipped the "why we can't" part, and created a road map for what the patient needs, not what they need or what we need. They haven't said, "We should try." They said, "Do it. Go figure it out, but do it. Success is the only option."

How do we respond? Debate the need for thrombolytics, the utility of blood cultures, the influence of the pharmaceutical industry on guidelines

(cf. Nero fiddles, AD 64). We debate the leaves and get lost in the forest. The point is, it's dangerous to let people sit in the waiting room for hours on end. It's dangerous to have every staff member working at absolute maximum speed to barely, just barely, meet the needs of some but not all who come for help. Finally, someone else has said not only that this is not acceptable, but has gone further to define what is acceptable. We have a dog in this hunt, so it might actually be time to toss out our own road map, and say "Do it."

How big does an ED need to be? How many staff? What equipment? What backup? Should doctors and nurses be spending time writing, typing, calling, pushing, seeking, and retrieving? Or (perish the thought!) would their time be better spent being doctors and nurses with these other tasks offloaded to support personnel? These questions can't really be answered until you define the task at hand. These are questions of far more interest to the 120 million people who visited emergency departments last year. I can imagine that they'd like us to say something useful on their behalf.

So let's start. Here's the premise: The system should be designed to meet the needs of the patient population. Period. I'll throw out some specific numbers for you to disagree with, but as you disagree, go ask your patients (and other physicians, for that matter) what *they* think. Think of these numbers as something we (the institution) would be

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Continuing Medical Education in EMN

In this and every issue, *Emergency Medicine News* offers two CME activities: 1) InFocus, the clinical evidence-based column written each month by James R. Roberts, MD, and 2) Learning to Live with the LLSA, a review of the American Board of Emergency Medicine's Lifelong Learning Self-Assessment reading list by Daniel K. Mullin, MD.

Target Audience Statements: The InFocus CME activity in *Emergency Medicine News* is intended for emergency physicians with an interest in the diagnosis and treatment of various disease processes commonly seen in emergency departments, with special emphasis on evidence-based medi-

cine. The Learning to Live with the LLSA CME activity in *Emergency Medicine News* is intended for emergency physicians with an interest in studying for the annual American Board of Emergency Medicine's Lifelong Learning and Self-Assessment examination.

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InFocus CME begins on p. 19

LLSA CME begins on p. 34

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MAD AS HELL

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required to meet at least 90 percent of the time.

Patients with chest pain should get an EKG, and have it interpreted by a physician within 10 minutes of hitting the ED door, and the doctor should be at the bedside within 15 minutes. A CT should be done and read in 20 minutes for suspected strokes. Someone with abdominal pain shouldn't wait more

than 30 minutes to be seen. If that patient is over 50 or has hypertension, 10 minutes. A pregnant woman with pain shouldn't wait more than 10 minutes. Patients over 65 shouldn't wait more than 15 minutes to see a doctor for *any* truncal complaint.

Crucial lab results should be back in less than 30 minutes. STAT films should be done in five minutes. Type-specific uncrossmatched blood should be available in five minutes. There should be sufficient nursing staff so that each acutely critical patient has his own nurse, based on the 90th percentile volume. Ambu-

lance diversion should occur no more than 15 minutes a decade. Door-to-admit to leaving-the-ED time should be less than four hours 90 percent of the time. How about this one? *No one* should wait more than one hour to be seen. You can add 50 more ideas to the list.

Once you define it, you can measure it. Things you can measure have a tendency to become important. Performance measures also are susceptible to modeling, with actually meaningful projection of space and staffing needs. (I recently did nursing staffing calculations for our department using five models out

there. The answers: We need 67 or 85 or 92 or 98 or 128 nurses. In short, the answer is, "We don't know.") With the system described in terms of performance measures, you can now begin to answer the question, "How do we fix it?" because you now have a sense of what the specific mission is. (By the way, we ought to actually *have* an answer, just in case someone actually asks.)

Such a model would directly imply that you need sufficient redundancy to adequately meet the needs of your patients on a day-to-day basis, rather than the current model of "how little do we need to get by?" It would directly imply that ED crowding is incompatible with the mission. (It would also imply that "crowding" is defined by the patient not getting what he needs if that failure is due to lack of space.) It also changes the measure from something meaningless (percent of time on diversion or number of patients who waited more than 100 hours to be seen) to something everyone can see is palpably important.

Problems such as overcrowding now have a framework, a measurable impact. It's much simpler to measure. If we can't deliver to our patients what needs to be delivered in the timeframe it needs to be delivered because of lack of space, we're too crowded, and something needs fixing. Sometimes the fix and the responsibility for performance will lie with us (which is probably precisely what most readers of this musing will object to). Sometimes it will be beyond us. But it reorients the world to what needs to happen, and allows one to describe the system needed to accomplish this.

What's important? Think of the common theme in the following list of problems. A nursing home won't accept a patient on off hours or weekends. A patient can't be discharged because a CT hasn't been read. A patient stays an extra day because of limited availability of stress testing. Several hours of delay occur in cleaning rooms or giving report. There are fewer discharges on weekends than on weekdays. Patients wait in the ED to be registered in spite of an available empty bed. The common theme? These problems are symptoms of a system designed to cater to the desires of the staff rather than the needs of the patient.

For the old man with the leaking AAA who walks in the door of your ED, every one of these things on the list is, quite simply, a direct threat to his life. A direct threat. Our system currently weighs the convenience of the nursing home, the CT reader, the stress tester, and the housekeeper as more importance than the old guy with the AAA. Otherwise, he just wouldn't wait (which he doesn't, when he is Someone Who Knows Someone; that's when we see which priorities are truly important).

We've never done this before. We've never enumerated the patients' needs and how long they should take to meet. For that matter, we probably won't because, quite frankly, we view it as impossible or as a burden to be suffered alone. We've been in the underbelly of

References: 1. Green D, Lechner K. A survey of 215 non-hemophilic patients with inhibitors to factor VIII. *Thromb Haemost.* 1981;45:200-203. 2. Yee TT, Taher A, Pasi KJ, Lee CA. A survey of patients with acquired haemophilia in a haemophilia centre over a 28-year period. *Clin Lab Haematol.* 2000;22:275-278. 3. Cohen AJ, Kessler CM. Acquired inhibitors. *Baillieres Clin Haematol.* 1996;9:331-354. 4. NovoSeven [package insert]. Princeton, NJ: Novo Nordisk Inc; 2006.

NovoSeven®

Coagulation Factor VIIa (Recombinant)

For Intravenous Use Only

Rx Only.

BRIEF SUMMARY

Please see package insert for prescribing information.

DESCRIPTION

NovoSeven® is recombinant human coagulation Factor VIIa (rFVIIa), intended for promoting hemostasis by activating the extrinsic pathway of the coagulation cascade. NovoSeven is a vitamin K-dependent glycoprotein consisting of 406 amino acid residues (MW 50 K Dalton). NovoSeven is structurally similar to human plasma-derived Factor VIIa.

INDICATIONS AND USAGE

NovoSeven is indicated for:

- treatment of bleeding episodes in hemophilia A or B patients with inhibitors to Factor VIII or Factor IX and in patients with acquired hemophilia
- prevention of bleeding in surgical interventions or invasive procedures in hemophilia A or B patients with inhibitors to Factor VIII or Factor IX and in patients with acquired hemophilia
- treatment of bleeding episodes in patients with congenital FVII deficiency
- prevention of bleeding in surgical interventions or invasive procedures in patients with congenital FVII deficiency

NovoSeven should be administered to patients only under the supervision of a physician experienced in the treatment of bleeding disorders.

CONTRAINDICATIONS

NovoSeven Coagulation Factor VIIa (Recombinant) should not be administered to patients with known hypersensitivity to NovoSeven or any of the components of NovoSeven. NovoSeven is contraindicated in patients with known hypersensitivity to mouse, hamster, or bovine proteins.

WARNINGS

The extent of the risk of thrombotic adverse events after treatment with NovoSeven in patients with hemophilia and inhibitors is not known, but is considered to be low. Patients with disseminated intravascular coagulation (DIC), advanced atherosclerotic disease, crush injury, septicemia, or concomitant treatment with aPCCs/PPCCs (activated or nonactivated prothrombin complex concentrates) may have an increased risk of developing thrombotic events due to circulating TF or predisposing coagulopathy. (See ADVERSE REACTIONS and Drug Interactions.) The extent of the risk of arterial and venous thromboembolic adverse events after treatment with NovoSeven in patients without hemophilia is also not known. A clinical study in elderly non-hemophilia intracerebral hemorrhage patients indicated a potential increased risk of arterial thromboembolic adverse events with use of NovoSeven, including myocardial ischemia, myocardial infarction, cerebral ischemia and/or infarction.

PRECAUTIONS

General

Patients who receive NovoSeven should be monitored if they develop signs or symptoms of activation of the coagulation system or thrombosis. When there is laboratory confirmation of intravascular coagulation or presence of clinical thrombosis, the rFVIIa dosage should be reduced or the treatment stopped, depending on the patient's symptoms.

Due to limited clinical studies which clearly address the effect of post-hemostatic dosing, precautions should be exercised when NovoSeven is used for prolonged dosing. (See DOSAGE AND ADMINISTRATION.)

Factor VII deficient patients should be monitored for prothrombin time and factor VII coagulant activity before and after administration of NovoSeven. If the factor VIIa activity fails to reach the expected level, or prothrombin time is not corrected, or bleeding is not controlled after treatment with the recommended doses, antibody formation may be suspected and analysis for antibodies should be performed.

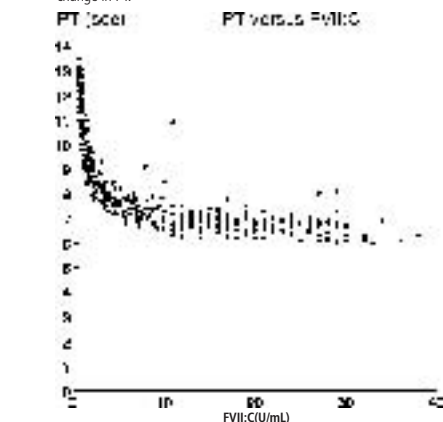
Information for Patients

Patients receiving NovoSeven should be informed of the benefits and risks associated with treatment. Patients should be warned about the early signs of hypersensitivity reactions, including hives, urticaria, tightness of the chest, wheezing, hypotension, and anaphylaxis.

Laboratory Tests

Laboratory coagulation parameters may be used as an adjunct to the clinical evaluation of hemostasis in monitoring the effectiveness and treatment schedule of NovoSeven although these parameters have shown no direct correlation to achieving hemostasis. Assays of prothrombin time (PT), activated partial thromboplastin time (aPTT), and plasma FVII clotting activity (FVII:C), may give different results with different reagents. Treatment with NovoSeven has been shown to produce the following characteristics:

PT: As shown below, in patients with hemophilia A/B with inhibitors, the PT shortened to about a 7-second plateau at a FVII:C level of approximately 5 U/mL. For FVII:C levels > 5 U/mL, there is no further change in PT.



aPTT: While administration of NovoSeven shortens the prolonged aPTT in hemophilia A/B patients with inhibitors, normalization has usually not been observed in doses shown to induce clinical improvement. Data indicate that clinical improvement was associated with a shortening of aPTT of 15 to 20 seconds.

FVIIa:C: FVIIa:C levels were measured two hours after NovoSeven administration of 35 µg/kg and 90 µg/kg following two days of dosing at two hour intervals. Average steady state levels were 11 and 28 U/mL for the two dose levels, respectively.

Drug Interactions

The risk of a potential interaction between NovoSeven and coagulation factor concentrates has not been adequately evaluated in preclinical or clinical studies. Simultaneous use of activated prothrombin complex concentrates or prothrombin complex concentrates should be avoided.

Although the specific drug interaction was not studied in a clinical trial, there have been more than 50 episodes of concomitant use of antifibrinolytic therapies (i.e., tranexamic acid, aminocaproic acid) and NovoSeven. NovoSeven should not be mixed with infusion solutions until clinical data are available to direct this use.

Carcinogenesis, Mutagenesis, Impairment of Fertility

Two mutagenicity studies have given no indication of carcinogenic potential for NovoSeven. The clastogenic activity of NovoSeven was evaluated in both *in vitro* studies (i.e., cultured human lymphocytes) and *in vivo* studies (i.e., mouse micronucleus test). Neither of these studies indicated clastogenic activity of NovoSeven. Other gene mutation studies have not been performed with NovoSeven (e.g., Ames test). No chronic carcinogenicity studies have been performed with NovoSeven.

A reproductive study in male and female rats at dose levels up to 3.0 mg/kg/day had no effect on mating performance, fertility, or litter characteristics.

Pregnancy

Pregnancy Category C. Treatment of rats and rabbits with NovoSeven in reproduction studies has been associated with mortality at doses up to 6 mg/kg and 5 mg/kg. At 6 mg/kg in rats, the abortion rate was 0 out of 25 litters; in rabbits at 5 mg/kg, the abortion rate was 2 out of 25 litters. Twenty-three out of 25 female rats given 6 mg/kg of NovoSeven gave birth successfully, however, two of the 23 litters died during the early period of lactation. No evidence of teratogenicity was observed after dosing with NovoSeven. There are no adequate and well-controlled studies in pregnant women. NovoSeven should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

Labor and Delivery

NovoSeven was administered to a FVII deficient patient (25 years of age, 66 kg) during a vaginal delivery (36 µg/kg) and during a tubal ligation (90 µg/kg). No adverse reactions were reported during labor, vaginal delivery, or the tubal ligation.

Nursing Mothers

It is not known whether NovoSeven is excreted in human milk. Because many drugs are excreted in human milk, and because of the potential for serious adverse reactions in nursing infants, a decision should be made whether to discontinue nursing or to discontinue the drug, taking into account the importance of the drug to the mother.

Pediatric Use

The safety and effectiveness of NovoSeven was not determined to be different in various age groups, from infants to adolescents (0 to 16 years of age). Clinical trials were conducted with dosing determined according to body weight and not according to age.

Geriatric Use

Clinical studies in hemophilia did not enroll geriatric patients.

ADVERSE REACTIONS

The most serious adverse reactions observed in patients receiving NovoSeven are thrombotic events, however the extent of the risk of thrombotic adverse events after treatment with NovoSeven in individuals with hemophilia and inhibitors is considered to be low. (See WARNINGS.)

The most common adverse reactions observed in clinical studies for all labeled indications of NovoSeven are pyrexia, hemorrhage, injection site reaction, arthralgia, headache, hypertension, hypotension, nausea, vomiting, pain, edema and rash.

The following sections describe the adverse event profile observed during clinical studies for each of the labeled indications. Because clinical studies are conducted under widely varying conditions, adverse reaction rates observed in the clinical trials of a drug product cannot be directly compared to rates in clinical trials of another drug, and may not reflect rates observed in practice.

Hemophilia A or B Patients with Inhibitors

The table below lists adverse events that were reported in 2% of the 298 patients with hemophilia A or B with inhibitors that were treated with NovoSeven for 1,939 bleeding episodes. The events listed are considered to be at least possibly related or of unknown relationship to NovoSeven administration.

Body System	# of episodes reported (n=1,939 treatments)	# of unique patients (n=298 patients)
Body as a whole		
Fever	16	13
Platelets, Bleeding, and Clotting		
Hemorrhage NOS	15	8
Fibrinogen plasma decreased	10	5
Skin and Musculoskeletal		
Hemarthrosis	14	8
Cardiovascular		
Hypertension	9	6

Events which were reported in 1% of patients and were considered to be at least possibly or of unknown relationship to NovoSeven administration were: allergic reaction, arthrosis, bradycardia, coagulation disorder, DIC, edema, fibrinolysis increased, headache, hypotension, injection site reaction, pain, pneumonia, prothrombin decreased, pruritus, purpura, rash, renal function abnormal, therapeutic response decreased, and vomiting.

Serious adverse events that were probably or possibly related, or where the relationship to NovoSeven was not specified, occurred in 14 of the 298 patients (4.7%). Six of the 14 patients died of the following conditions: worsening of chronic renal failure, anesthesia complications during proctoscopy, renal failure complicating a retroperitoneal bleed, ruptured abscess leading to sepsis and DIC, pneumonia, and splenic hematoma and GI bleeding. Thrombosis was reported in two of the 298 patients with hemophilia.

Surgery Studies

In Study C, six patients experienced serious adverse events: two of these patients had events which were considered probably or possibly related to study medication (acute post-operative hemarthrosis, internal jugular thrombosis). No deaths occurred during the study.

In Study D, seven of 24 patients had serious adverse events (4 for bolus injection, 3 for continuous infusion). There were 4 serious adverse events which were considered probably or possibly related to rFVIIa treatment (2 events of decreased therapeutic response in each treatment arm). No deaths occurred during the study period.

Congenital Factor VII Deficiency

Data collected from the compassionate/emergency use programs, the published literature, a pharmacokinetics study, and the HTRS registry showed that at least 75 patients with Factor VII deficiency had received NovoSeven - 70 patients for 124 bleeding episodes, surgeries, or prophylaxis regimens; 5 patients in the pharmacokinetics trial.

In the compassionate/emergency use programs, 28 adverse events in 13 patients and 10 serious adverse events in 9 patients were reported. Non-serious adverse events in the compassionate/emergency use programs were single events in one patient, except for fever (3 patients), intracranial hemorrhage (3 patients), and pain (2 subjects). The most common serious adverse event in the compassionate/emergency programs was serious bleeding in critically ill patients. All nine patients with serious adverse events died. One adverse event (localized phlebitis) was reported in the literature. No adverse events were reported in the pharmacokinetics reports or for the HTRS registry. No thromboembolic complications were reported for the 75 patients included here.

Isolated cases of factor VII deficient patients developing antibodies against factor VII were reported after treatment with NovoSeven. These patients had previously been treated with human plasma and/or plasma-derived factor VII. In some cases the antibodies showed inhibitory effect *in vitro*.

Acquired Hemophilia

Data collected from four compassionate use programs, the HTRS registry, and the published literature showed that 139 patients with acquired hemophilia received NovoSeven for 204 bleeding episodes, surgeries and traumatic injuries.

Of these 139 patients, 10 experienced 12 serious adverse events that were of possible, probable, or unknown relationship to treatment with NovoSeven. Thrombotic serious adverse events included cerebral infarction, cerebral ischemia, angina pectoris, myocardial infarction, pulmonary embolism and deep vein thrombosis. Additional serious adverse events included shock and subdural hematoma.

Data collected for mortality in the compassionate use programs, the HTRS registry and the publications spanning a 10 year period, was overall 32/139 (23%). Deaths due to hemorrhage were 10, cardiovascular failure 4, neoplasia 4, unknown causes 4, respiratory failure 3, thrombotic events 2, sepsis 2, arrhythmia 2 and trauma 1.

Postmarketing Experience

The following post marketing adverse events are reported voluntarily from a population of uncertain size; hence, it is not possible to estimate their frequency or establish a causal relationship to exposure.

The following additional adverse events were reported following the use of NovoSeven in both labeled indications and unlabeled indications that included individuals with situational coagulopathy and without known coagulopathy: high D-dimer levels and consumptive coagulopathy, thromboembolic events including myocardial infarction, myocardial ischemia, cerebral infarction and/or ischemia, thrombophlebitis, arterial thrombosis, deep vein thrombosis and related pulmonary embolism, and isolated cases of hypersensitivity reactions including anaphylactic reactions. (See WARNINGS and PRECAUTIONS.) Evaluation and interpretation of these post marketing events is confounded by underlying diagnoses, concomitant medications, pre-existing conditions, and inherent limitations of passive surveillance. A causal relationship has not been established for the above events.

Additional data on the adverse event profile in general and regarding the frequency of thrombotic events in particular is being collected through a postmarket surveillance program. The Hemophilia and Thrombosis Research Society (HTRS) Registry surveillance program is designed to collect data on all uses of NovoSeven to expand the base of experience regarding the use of NovoSeven. All prescribers can obtain information regarding contribution of patient data to this program by calling 1-877-362-7355.

OVERDOSAGE

Dose limiting toxicities of NovoSeven Coagulation Factor VIIa (Recombinant) have not been investigated in clinical trials. The following are examples of accidental overdose. One hemophilia B patient (16 years of age, 68 kg) received a single dose of 352 µg/kg and one hemophilia A patient (2 years of age, 14.6 kg) received doses ranging from 246 µg/kg to 986 µg/kg on five consecutive days. There were no reported complications in either case. A newborn female with congenital factor VII deficiency was administered an overdose of rFVIIa (single dose: 800 µg/kg). Following additional administration of rFVIIa and various plasma products, antibodies against rFVIIa were detected, but no thrombotic complications were reported. A Factor VII deficient male (83 years of age, 111.1 kg) received two doses of 324 µg/kg (10-20 times the recommended dose) and experienced a thrombotic event (occipital stroke). The recommended dose schedule should not be intentionally increased, even in the case of lack of effect, due to the absence of information on the additional risk that may be incurred.

More detailed information is available on request.

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the beast for too long. Our view of our own world is simply too dysfunctional. It's unfortunate that others outside our specialty have to step up to bat on behalf of our patients.

We've focused for 20 years on what's wrong. We need to describe what "right" should look like. Empty your mind of anything you currently know about emergency departments. Quit thinking of them as "pits." Victory is *not* reducing ambulance diversion from 40 percent to 25 percent or decreasing waiting times from seven hours to three. The road map I propose describes a very different world from the one in which we currently live. It describes emergency care *as the patient should receive it*. It allows for clear questions, vigorous debate, and clear answers. It provides a framework for what we should do, a framework desperately lacking in emergency medicine.

A pipe dream? Here's what it could look like. I come to work in the morning. Today is different because today I'm not going to page, write, push patients, take messages, wait for calls, seek out results, or find missing stock. Neither is the nurse. The place is brimming with activity, pulsing with technology, the best tracking systems, a STAT lab, an ultrasound machine in every area, adjacent CT, MRI, and stress testing. Telemedicine is available for immediate consultation if needed. Tracking systems alert the appropriate personnel if there are backups in radiology, admissions, etc. In fact, we're so well stocked, staffed, and resourced that someone mistakes us for a new ambulatory surgery center or cardiac cath lab.

Adequate attention has been given to stocking, to care maps and order sets, to streamlining the consult and admit process. A patient with a suspected stroke enters the ED. He moves directly from triage to a bed, with registration occurring in parallel with his care. Within minutes, I'm at his bedside. As I evaluate the patient, my activities are recorded by a scribe. "Initiate stroke protocol" is *all* I have to say to initiate an action map for labs, EKG, and CT to be obtained and read and the neurologist to be paged. Any additional orders are entered by the scribe, and I sign the orders.

Results will be brought to my attention as they return; I won't hunt for them. The nurse's scribe records all of the nurse's activities as well, and records the nursing assessment. I move from patient to patient, able to be thorough and yet move quickly. Doctors and nurses, oddly, are spending 100 percent of their time being doctors and nurses. What has dramatically expanded is adding far less expensive support personnel. (Do the math: Add one doctor or 12 scribes.) Absolutely every action which does not directly *need* a physician or nurse is shifted to support staff, which conservatively gives 25 percent to 40 percent of physician/nurse time back to the bedside of the patient. When we have done what we need to do with the patient, the patient leaves, either discharged or admitted. Period. Consultative services are held to the same performance standards as the


ED, and their responses are timely. The neurologist has arrived. Because of the carefully crafted, smoothly flowing system, I now have enough time to argue the utility of thrombolytics in stroke, thus achieving a door-to-debate time of less than 30 minutes.

This is an ED designed to save lives, the front door of an institution determined to do the same. To provide a service to the individual and the community. This is an ED (and hospital) where *everyone* is a Very Important Person who deserves, if we can give them the chance, to continue their Very Important Life,

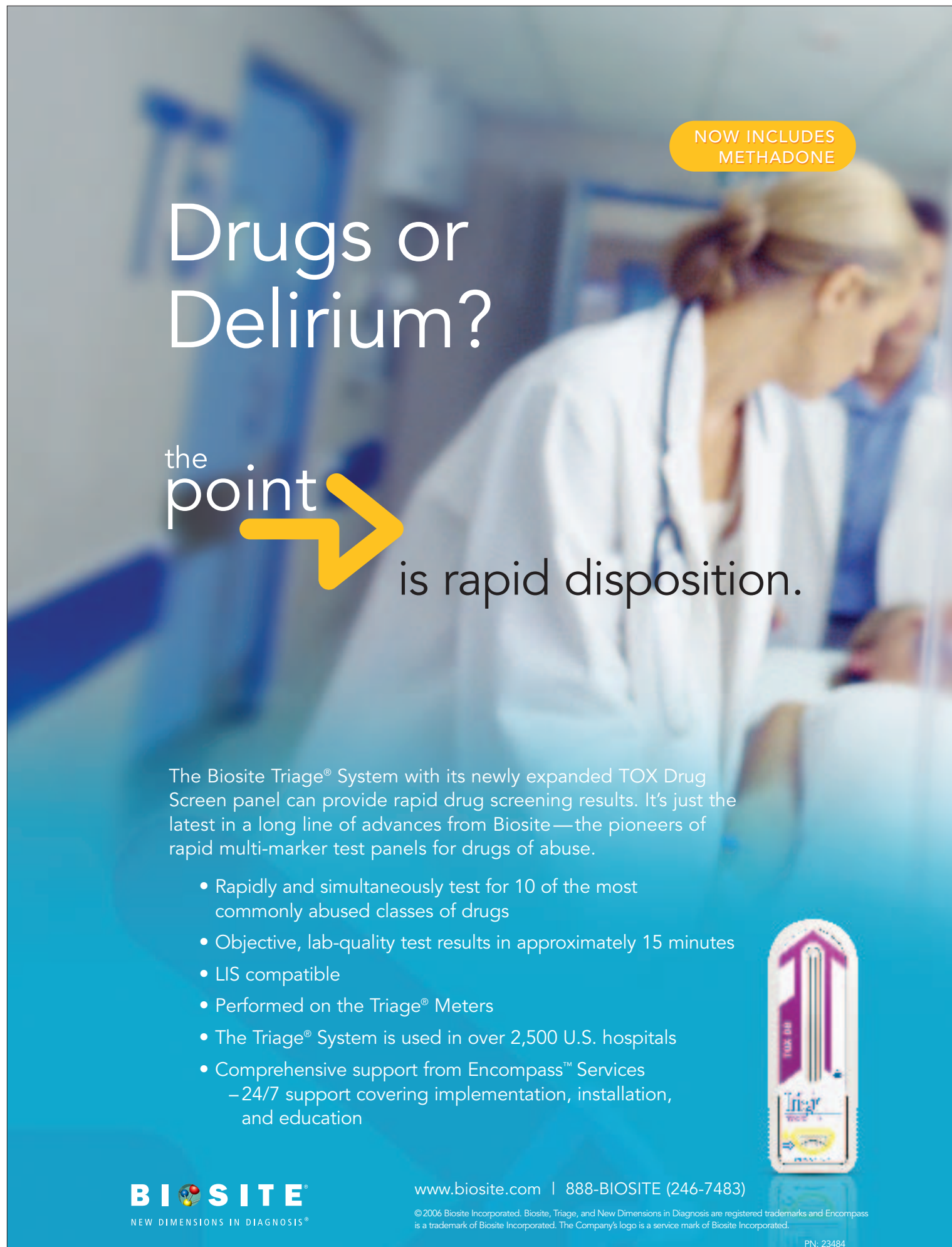
and not to toss it away in the waiting room or ED hallway because we can only hope for an ED built on compromise and capitulation. Why demand any less?

Virtually every person in this country will at a most dramatic and critical point in his life need us. Every person. Those people, their doctors, the regulators, and the administrators also believe that attention should be prompt and thorough, the environment safe, and the resources adequate. They want it to happen when a patient has a heart attack or a finger lac. A clear road map might help them recognize it when they see it. Of

course, having the space to see the patient becomes the starting point, not the finish line.


Somebody, somewhere, needs to stick his head out the window and shout, "I'm as mad as hell, and I'm not going to take this anymore." Just like the patients in our waiting rooms. Except the ones too sick to shout. 

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