LEARNING MODULE I

Seminar # 14

Emergency Medical Services Intervention

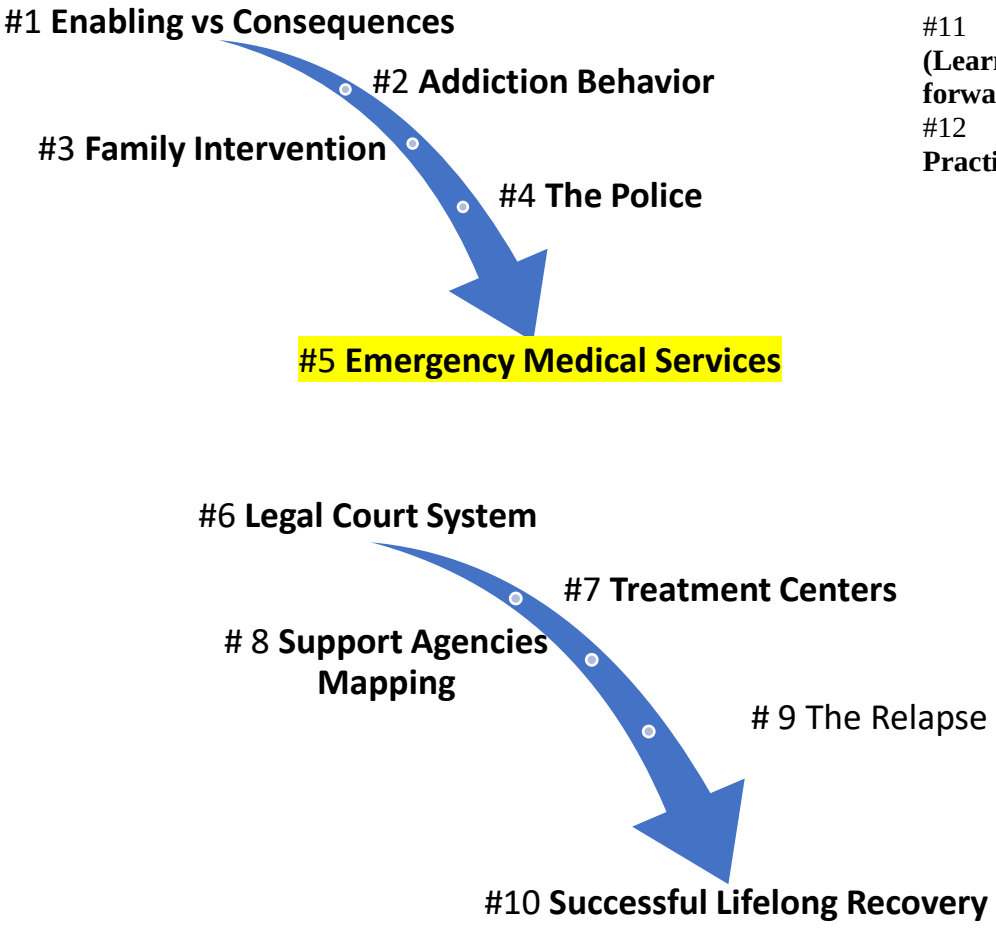
Learning Objectives

1. What is the issue

2. How can the issue impact the family

3. What are the options

Pathfinder: The 12 Key Issues a Family Faces



#11 **Bereavement (Learning how to move forward)**

#12 **Spirituality, Faith Practices**

What is the issue?

Make no mistake about it, when the stages of this disease reach a need for medical intervention, you are at a new phase in the family journey. This is the sever stage and now is not the time to learn about what will happen next and how you need to respond. Fortunately, you are taking this seminar and can start the learning process to be prepare for this likely future event.

This is an intervention and can be a critical turning point at getting your loved one to accept treatment. However, it can go either way; it may yield a successful next step or may be a temporary and frightening experience in the continuation in self-use. It may also be the end of their journey in life.

Signs of OVERDOSE, which is a life-threatening emergency, include the following:
 The face is extremely pale and/or clammy.
to the touch.

 The body is limp.

 Fingernails or lips have a blue or purple cast.

 The person is vomiting or making gurgling noises.

 The person cannot be awakened from sleep or cannot speak.

 Breathing is terribly slow or stopped.

 The heartbeat is terribly slow or stopped.

CALL 911

There are four phases to the “Emergency Medical Service Intervention”:

1. Paramedic First Response Phrase.
2. Hospital Emergency Room Visit.
3. Hospital Intensive Care Unit Admissions or Discharge.

The reality of this experience is a hospital will not be going to take ownership of seeing your loved one through their next steps into recovery. That is going to be your job, not theirs. We need to keep our expectations in line with what is most likely to happen.

The hospital will treat them for their condition, (which is what they are there for) and release them. If your loved one is referred to a Peer-to-Peer coach, great. They may also be seen in follow up visits with behavioral health, admitted to a treatment center or discharged to the custody of the police. All of these are not the responsibility of the hospital to follow that point, it is not their concern, it is yours and yours alone.

But by knowing the steps in an “Emergency Medical Services Intervention”, you can stay one step in front of their process and set up the best next choices for your loved one.

The family members need to:

1. Get Educated on the process.
2. Get Organized to be ready should this occur.
3. Get Networked in advance, to know who is here to help.

How can the issue impact the family?

Get Educated

What is your budget for this expense?
Nothing is free. You will get a bill for transportation to the Emergency Room and it is likely not covered by insurance. The emergency room patients are likely to get a surprise hospital bill from the radiology, medical transport, and other specialty groups such as cardiology departments**.**

They do not necessarily have your back in follow-up.
A new study found that fewer than 10% of ED patients treated for opioid overdoses received medications to treat their substance use disorder. In the years after their overdose, only 10% of those overdose patients received mental health counseling. Experts say a lack of training among health professionals undermines what happens after the overdose patient is stabilized. However, the family members could have prevented this by getting their loved one to the right level of care.

How can the family respond for best results?
We should be doing everything we can to get them plugged into treatment. By comparison to someone who came into the emergency room with a heart attack. It is taken for granted that the patient would leave with heart medication and a referral to a cardiac specialist. Similarly, you would think patients who come in with an overdose to start buprenorphine in the hospital and leave with a referral to other forms of treatment. The family needs to understand that a lack of training and understanding among health professionals continues to undermine what happens after the overdose patient is stabilized. The emergency rooms are not particularly well trained to be able to help people in a situation like this. So, it is up to the family to get educated on what treatments are best practice for their loved one upon discharge from the ER. McEvoy, M. Naloxone: Drug Whys. EMS1. 2015, October 22.

For this reason, your family is needed in the ER, to advocate for the right level of assessment, treatment and especially follow-up care.

Check list of events which may occur.

Para-Medic

Stablize and Transport

- Stablize VItal Signs for respiratory, cardiac and neurogolgy (brain fuctioning)
- Transport to the ER, non-cobative

Hospital ER Visit

Triage, Assess, Treat, Discharge

- Triage Vitals is the hospitals first priority
- Assess Severity, what drugs are identified, is referral to ICU required?
- Treat condition and Co-Mobidities, stablize condition, treat other identified co-mobidities.

Hospital ICU Admission or Discharge

olice, Treatment Center, Peer to Peer Coach or

Stablize, Improve Condition, Discharge

- Discharge
- Intesive Care Unit (ICU)
- Plan of Treatment
- Discharge

Paramedic, First Responder (NOTE: This is not for the family members to use, it is only for the family members to understand what the clinicians are doing as you observe). Do not take any of these steps unless you are a license professional in this field.

A Case Simulation:
The Emergency responders arrive. An assessment of the patient's vital signs reveals a heart rate of 123 beats per minute, blood pressure of 122/86 mmHg, and an oxygen saturation of 98% with assisted ventilation (his room air oxygen saturation was 66%). His initial end tidal CO2 is 70 mmHg and his blood glucose is 269 mg/dL. The patient's skin is pale, dry, and cold to the touch. After establishing IV access and starting a normal saline bolus, the crew administers 0.4 mg of IV naloxone (Narcan).

After five minutes, his spontaneous respiratory effort improves, and he becomes agitated and combative. The patient's movement is not purposeful, and he is not able to speak. The patient is placed on high flow oxygen via non-rebreather mask. Reassessment of vital signs reveals a heart rate of 140 beats per minute, a blood pressure pf 134/83 mmHg, a SpO2 of 99%, a respiratory effort of 30 breaths per minute, and an EtCO2 of 34 mmHg. The patient now has a Glasgow coma score of 8.

One of the first responders suggests an additional dose of naloxone because the patient is still obtunded. Though the patient continues to exhibit decreased mentation, he is breathing adequately, so there is no indication to give additional naloxone. The crew captures an ECG which is unremarkable and prepares the patient for transport to the hospital.

While in route to the receiving facility, the patient becomes increasingly combative and the crew is forced to sedate him with midazolam (Versed). After two 2.5 mg of IV midazolam, the patient is appropriately sedated. The patient does not experience any respiratory depression and the rest of the transport is uneventful.

Upon arrival at the ED, the patient is transferred to staff, and the crew starts to get their gear back together for the next call. The patient's urine drug screen is found to be positive for opioids as well as cocaine, and his core body temperature is 84 degrees F. Active rewarming is initiated in the ED and the patient is admitted to the ICU.

What are the options?

Hospital Emergency Room Visit

Stabilization of vital signs is the hospital first concern. The cardiac, respiratory, and neurological (brain) is closely assessed for conditions of decline.

One of the protocols is the use of Naloxone. This may also be the response used on site with the first responders.

With any overdose that results in admission, the first few hours determine not only the outcome, but also the pace at which patients recover.

The key is to identify the important clinical effects. That means figuring out if the overdose is activating (or deactivating) the central nervous system, causing cardiac arrhythmias, or depressing myocardial function, or causing anion gap acidosis. The heart.

"Those are the really big ones you need to be concerned about early on," says Dr. Heard, who is on the faculty at the University of Colorado School of Medicine.

The recognizing of exactly what drug was used is not necessarily as important as recognizing the severity of patients' symptoms and responding to them. With a drug that deactivate the CNS as Opioids, the most common reason people die is because they lose their airway. By managing the patients' airway, they are likely going to survive.

This means ventilation is important, when ER or First Responders overdose the short-acting sedatives to calm the patient with a drug like midazolam or propofol, patients may experience longer ICU course because someone gave them multiple doses of lorazepam. They are overly sedated when they might have been ready to extubate.

Naloxone in the ER

1. Opioids cause respiratory compromise and naloxone can reverse it

All opioids stimulate specific receptors in the brain, which decreases perception of pain and causes a feeling of euphoria. When overstimulated, opioid receptors desensitize the brainstem to rises in CO2, which causes respiratory depression, creating a loss of protective airway reflexes and respiratory arrest. Cardiac arrest from opioid overdoses is usually secondary to respiratory arrest. Both are critical and life threatening.

Naloxone reverses narcotic overdoses by binding to opioid receptors in the neuronal channel, which blocks stimulation from the opioid substance. If administered in time, this restores the patient's airway reflexes, respiratory drive and level of consciousness.

The major drawback of naloxone is that it can trigger withdrawal symptoms in patients addicted to narcotics, including agitation, tachycardia, vomiting and pulmonary edema. Withdrawal symptoms are usually mild and short lasting, but some patients can become violent after receiving naloxone. Violent reactions are usually after intravenous naloxone is administered at too high a dose or too quickly [2]. Remember the goal of treatment is to restore respiratory drive and airway reflexes, prevent respiratory and cardiac arrest, and avoid causing severe opioid withdrawal [1].

2. Address circulation and ventilation before administering naloxone.
3. Initial care for patients with a suspected narcotic overdose is the same as for any other patient with decreased mental status. They may present drowsy, even falling asleep mid-sentence, and require frequent verbal or tactile stimuli for arousal. They may also be unconscious with slow or agonal respirations, diaphoretic and cyanotic. Opioid usage also causes pupils to constrict but taking of another substance or anoxic brain injury may cause pupils to dilate. Once respiratory depression occurs, assisted ventilation and naloxone are vital to prevent permanent brain damage or death [2].
4. The pulse is first checked of an unconscious patient. If a pulse is not detected, they start chest compressions and attach the defibrillator. The 2015 American Heart Association guidelines recommend standard ACLS practices for cardiac arrest secondary to opioid overdose and makes no recommendation regarding the administration of naloxone [1].
5. For unconscious patients with a pulse, they will open the airway, assess respiratory rate, and assist ventilation with a bag-valve mask.
6. They will assess pulse-oximetry to guide ventilation rate and to determine if ventilations are effective. The amount of carbon dioxide (CO2) in exhaled air at the end of each breath (end-tidal CO2, or ETCO2) will be monitored.
7. **When giving naloxone, think intranasal administration first.**

Naloxone can be administered intravenously (IV), intramuscularly (IM), intranasally (IN), subcutaneous (SQ), endotracheal and via nebulizer. The most common routes for EMS administration are intranasal, intramuscular, and intravenous, which has several advantages over the other routes for the initial dose.

Patients respond approximately 80 percent of the time to both intravenous and intranasal naloxone, but the onset of intranasal naloxone is longer, the recovery is more gradual, and there is less risk of patient agitation and withdrawal symptoms.

Because ventilation and oxygenation are addressed before naloxone administration, other benefits of intranasal administration outweigh the added time needed to restore spontaneous respiration and airway reflexes. A higher dose of naloxone may be needed to reverse longer-lasting oral or transdermal opioids than for heroin. Even if a second intravenous dose is needed later, there is no downside to giving an initial dose intranasal before attempting intravenous access.

Approximately 20 percent of opioid overdose patients do not respond to naloxone. This may be from a high opioid dose, brain damage after a prolonged downtime, or use of other medications.

References:

Lavonas EJ, Drennan IR, Gabrielli A, Heffner AC, Hoyte CO, Orkin AM, Sawyer KN, Donnino MW. Part 10: special circumstances of resuscitation: 2015 American Heart Association Guidelines Update for Cardiopulmonary Resuscitation and Cardiovascular Care. *Circulation*. 2015;132(suppl 2): S501–S518.

Hospital Admission to ICU or Discharge

Hospital Admission to ICU

This admission is not about the drug, it is to address the damaged caused by the drug.

Admission into the Intensive Care Unit (ICU) will be assessed in the emergency room. Note: the death rate among overdose patients treated in ICUs averaged 7% in 2009 and increased to 10% in 2015.

Patients admitted to ICUs due to overdoses have several common comorbidities including aspiration pneumonia (25%), septic shock (6%), rhabdomyolysis (15%) and anoxic brain injury (8%). Ten percent of patients who overdosed needed mechanical ventilation.

A typical length of stay is 3-4 days.

Hospital Discharge

St. Paul's MN Hospital, Early Discharge Rule was derived to determine which patients could be safely discharged from the emergency department after a 1-hour observation period following naloxone administration for opiate overdose. The rule suggested that patients could be safely discharged if they could mobilize as usual and had a normal oxygen saturation, respiratory rate, temperature, heart rate, and Glasgow Coma Scale score. Validation of the St. Paul's Early Discharge Rule is necessary to ensure that these criteria are appropriate to apply to patients presenting after an unintentional presumed opioid overdose in the context of emerging synthetic opioids and expanded naloxone access

Dr. Yngvild Olsen, medical director for the Institutes for Behavior Resources/REACH Health Services in Baltimore, says the study confirms what many in the addiction medicine field have known for a long time: There's a need for interventions beyond what she calls the "usual standard of care, which has been to hand people a phone number or pamphlet and say, 'Here. Good luck.' "

Olsen says such interventions are in the works. She points to a 2015 study by researchers at the Yale School of Medicine who tested three interventions for opioid-dependent patients who came to the emergency department for medical care.

The first group was given a handout with contact information for addiction services. The second group got a 10- to 15-minute interview session with a research associate who provided information about treatment options and helped the patient connect with a treatment provider, even arranging transportation. The third group got the same interview, plus a first dose of buprenorphine, additional doses to take home and a scheduled appointment with a primary care provider who could continue the buprenorphine treatment within 72 hours.

Dr. Corey Waller, who trained in emergency medicine and is now senior medical director for the National Center for Complex Health and Social Needs, says medical teams often lack basic knowledge.
"The professionals that are supposed to be able to refer and treat don't have the training to know how and what to do," Waller says, pointing out that as a resident, he received less than one hour of instruction in addiction treatment.

Another problem, he says, is that emergency departments treat an opioid overdose as a toxicological problem, not unlike dealing with a patient who took too much Tylenol.

"But what that completely ignores are the psychological aspects of [addiction]," Waller says. "When you ignore that, you are fully ignoring the disease. And you're looking at the patient like a toxicological problem and not a human."

He says it is important to remember that opioid addiction changes people's brains in ways that keep them from making logical decisions, such as seeking out treatment after an overdose. "They're not putting a pros and cons list on the refrigerator," he says. "They're just reacting to a situation that feels very much like survival."
The study found that 78 percent of patients in the third group — the group that got a dose of buprenorphine in the hospital — were still in treatment 30 days later, compared with 45 percent in the group that only got the interview and 37 percent who only got the handout.

Based on the study, hospitals across the country are now discussing incorporating buprenorphine into emergency department care for patients who have overdosed, Olsen says. Several Baltimore hospitals have begun doing so. She is hopeful that such a system could provide new paths to treatment for people who need it, while not overburdening emergency department staff who are already stretched thin.

"Conceptually, it makes so much sense," Olsen says. "It is, in my mind, one of those landmark studies that really addresses how to take advantage of those missed opportunities that the JAMA research letter describes."

The initial assessment and treatment of patients attending an emergency department (ED) for suspected drug poisoning takes place in the emergency room, where the busy physicians must rapidly decide on the level of therapeutic measures and disposal. Decontamination procedures for drug overdose are recommended under specific circumstances by the American Academy of Clinical Toxicology and by the European Association of Poison Centers and Clinical Toxicology in a joint position statement,1 but their efficacy is questioned. The most important measure is a correct management of individual patients, according to their clinical status and hospital resources. In unstable patients, lifesaving support is mandatory, independently of laboratory results, whereas in uncomplicated, stable, slightly drowsy patients, with no specific symptoms of drug poisoning, the diagnosis may be uncertain, and there is no definite consensus on treatment and disposal. These patients are a special challenge for the emergency physicians.

A pure clinical approach, without confirmatory laboratory results, makes diagnosis and decision making highly uncertain. Some patients need only a brief period of observation in ED, while others may need care in a high dependency unit (HDU) or in intensive care unit (ICU), in relation to worsening clinical status or long-acting drug overdose.

Comprehensive drug screenings have been proposed to document and confirm any acute drug overdose in patients for suspected poisoning.

2 A screening procedure is operative in our unit, permitting the determination of over 900 drugs and their metabolites in a turnaround of 20 to 60 minutes. Its usefulness has however been questioned.

3 In most cases the results do not change, the decision being mainly based on clinical parameters.

4 Drug screening, limited to life threatening drugs selected based on the clinical suspect, is currently considered a cost-effective diagnostic tool.
The aim of this study was to evaluate the effects of comprehensive drug screening in decision making strategies of patients with suspected drug poisoning. We aimed to determine whether the results of such screening improved the agreement in an expert panel of emergency physicians and changed the decision on patients' disposal, potentially saving hospital resources.

REF: Comprehensive drug screening in decision making of patients attending the emergency department for suspected drug overdose A Fabbri, G Marchesini, A M Morselli-Labate, S Ruggeri, M Fallani, R Melandri, V Bua, A Pasquale, A Vandelli

RESOURCES FOR OVERDOSE SURVIVORS AND FAMILY MEMBERS

Survivors of opioid overdose have experienced a life-changing and traumatic event. They have had to deal with the emotional consequences of overdosing, which can involve embarrassment, guilt, anger, and gratitude, all accompanied by the discomfort of opioid withdrawal. Most need the support of family and friends to take the next steps toward recovery.

While many factors can contribute to opioid overdose, it is almost always an accident. Moreover, the underlying problem that led to opioid use—most often pain or substance use disorder—still exists and continues to require attention.

The individual who has experienced an overdose is not the only one who has endured a traumatic event. Family members often feel judged or inadequate because they could not prevent the overdose. It is important for family members to work together to help the overdose survivor obtain the help that he or she needs.

FINDING A NETWORK OF SUPPORT

As with any health condition, it is not a sign of weakness to admit that a person or a family cannot deal with overdose and its associated issues without help. It takes real courage to reach out to others for support and to connect with members of the community to get help. Health care providers, including those who specialize in treating substance use disorders, can provide structured, therapeutic support and feedback.

If the survivor's underlying problem is pain, referral to a pain specialist may be in order. If it is addiction, the patient should be referred to an addiction specialist for assessment and treatment by a physician specializing in the treatment of opioid addiction in a residential treatment program or in a federally certified opioid treatment program.

In each case, counseling can help the individual manage his or her problems in a healthier way. The path to recovery can be a dynamic and challenging process, but there are ways to help. In addition to receiving support from family and friends, overdose survivors can access a variety of community-based organizations and institutions, such as:

- Health care and behavioral health providers.
- Peer-to-peer recovery support groups such as Narcotics Anonymous.
- Faith-based organizations.
- Educational institutions.
- Neighborhood groups.
- Government agencies.
- Family and community support programs.

The Personal Attaché Organized Binder

Because your next step will require request for new information it is best to organize these documents into a Binder. You will complete this exercise in "The Family Solution Finder Workbook" under this section: The Emergency Medical Services Intervention.

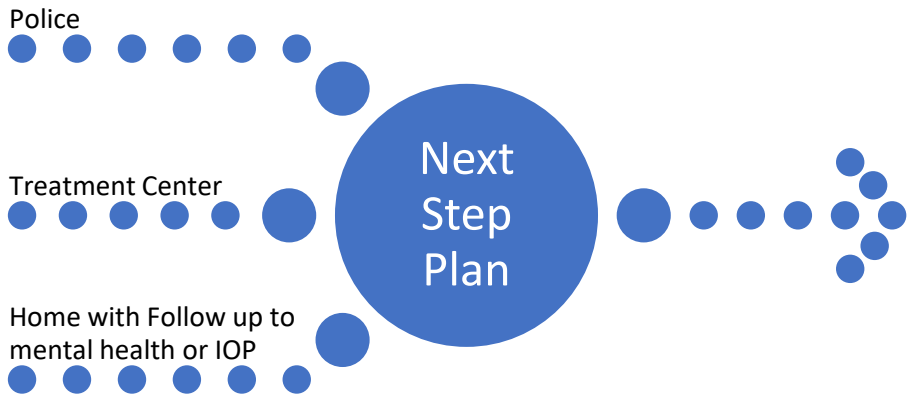
There are several steps a family will go through when using a hospital for the care of their loved one. Most of these require documents, billing information, healthcare history information and current health status updates. This can all be contained by the family in a "Family Personal Attaché Binder", which the family assembles prior to needing this level of information.

The Family Personal Attaché is a binder system that contain important documents and information about the person's life that are requested by professional service for them to provide their services. In the Binder System there are four parts:

1. The Legal Section
2. The Medical Section
3. The Financial Section
4. Spiritual/Social/Community Networking Sections

All these sections are filled in with specific documents and information about the persons status, history, and future. In the case of completing this family binder for the person with a substance use disorder the medical section is the part that will be most frequency used and updated.

Your Family Plan of Action After Discharge:



Each of the above categories can be learned prior to the event taking place. It will be a great value to the family members if they get educated about each option and then create a plan of action on that topic to pre-determine the choices the family will need to consider.

Because each case is unique it will be difficult to determine all the steps that will be needed. However, having a mutual base understanding will assist the family in communicating, making stronger decision and in the end save time and money for improved outcomes.

Next Steps Following Emergency Medical Services Intervention

At this point, the hospital visit is over and now the next steps will require new decisions and choices of which path to take.

This scenario plays out in emergency departments across the country, where is the next step — unfortunately, the means to divert addicted patients into treatment — remains elusive, creating a missed opportunity in the health system. A recent study of Medicaid claims in West Virginia, which has an opioid overdose rate more than three times the national average and the highest death rate from drug overdoses in the country, documented this disconnect.

Researchers analyzed claims for 301 people who had nonfatal overdoses in 2014 and 2015. By examining hospital codes for opioid poisoning, researchers followed the patients' treatment, seeing if they were billed in the following months for mental health visits, opioid counseling visits or prescriptions for psychiatric and substance abuse medications.

They found that fewer than 10 percent of people in the study received, per month, medications like naltrexone or buprenorphine to treat their substance use disorder. (Methadone is another option to treat substance use, but it is not covered by West Virginia Medicaid and was not included in the study.) In the month of the overdose, about 15 percent received mental health counseling. However, on average, in the year after the overdose, that number fell to fewer than 10 percent per month.

"We expected more … especially given the national news about opioid abuse," said Neel Koyawala, a second-year medical student at Johns Hopkins School of Medicine in Baltimore, and the lead author on the study, which was published last month in the Journal of General Internal Medicine.

It is an opportunity that is being missed in emergency rooms everywhere, said Andrew Kolodny, the co-director of Opioid Policy Research at the Heller School for Social Policy and Management at Brandeis University outside Boston. "There's a lot of evidence that we're failing to take advantage of this low-hanging fruit with individuals who have experienced a nonfatal overdose," Kolodny said. "We should be focusing resources on that population. We should be doing everything we can to get them plugged into treatment."

He compared it to someone who came into the emergency room with a heart attack. It is taken for granted that the patient would leave with heart medication and a referral to a cardiac specialist. Similarly, he wants patients who come in with an overdose to start buprenorphine in the hospital and leave with a referral to other forms of treatment.

Kolodny and Koyawala both noted that a lack of training and understanding among health professionals continues to undermine what happens after the overdose patient is stabilized.

"Our colleagues in emergency rooms are not particularly well trained to be able to help people in a situation like this," said Dr. Margaret Jarvis, the

It was clear, Angerer said, that her doctors were not equipped to deal with her addiction. They did not know, for instance, what she was talking about when she said she was "dope sick," feeling ill while she was going through withdrawal. "They were completely unaware of so much, and it completely blew my mind,"

Ref: Journal of General Internal Medicine June 2019, Volume 34, Issue 6, pp 789–791| *Cite as Changes in Outpatient Services and Medication Use Following a Non-fatal Opioid Overdose in the West Virginia Medicaid Program*

Plan of Care as follow up:
According to a news report, 79% of overdose victims in Delaware died in private homes. Fifty-two percent of overdose deaths occurred within three months of a visit to an emergency room. Most exhibited signs of substance abuse disorder during those ER visits. That is according to a new report from the Delaware Drug Overdose Fatality Review Commission, which was created to better understand the state's overdose death epidemic.

It is absurd that we do not voluntarily offer the best care we have to anyone who wants it in the aftermath of an overdose, on the spot.

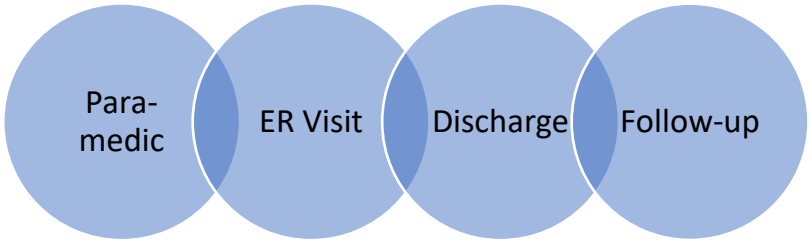
A strategy of offering immediate medication treatment has been studied in a randomized clinical trial published in the *Journal of the American Medical Association* in 2015. 329 patients were included. Of this group, 104 were simply provided a referral to further treatment, 111 were given referrals along with a brief motivational therapy aimed at encouraging them to follow through and enter care and 114 were prescribed buprenorphine right then and there.

Not surprisingly, the buprenorphine patients were twice as likely as those who were simply offered treatment referrals to still be in treatment a month later, and they reduced their illegal opioid use from an average of five days a week to an average of just one.

While 78% of them were still in treatment, fewer than half of the other two groups remained engaged—and their drug use was reduced by far less than in the group who got buprenorphine immediately, according to Dr. Gail D'Onofrio, lead author of the study, and a professor of emergency medicine at Yale.

"Immediate treatment in the emergency room with buprenorphine for a patient withdrawing or after an overdose is critical to save more lives and engage more people in treatment, but only if the 100-patient limit is eliminated and people have somewhere to go for maintenance," says Dr. Molly Rutherford, a family doctor who treats addiction in Kentucky, which is one of the hardest hit states. She also notes that many E.R. doctors may also be unaware that they are legally able to provide emergency maintenance.

Of these four, follow up is the most often neglected and creates the greatest loss in opportunity to move forward.



So often is the case where the patient leaves the ER, says they are fine, and months go by. Then it happens again. Repeatedly.

Stop the cycle by using the ER as a launch into follow up services, know the resources now before you need them. Because it is highly likely you will need them.