



**NORTHWEST
COMMUNITY
EMERGENCY
MEDICAL
SERVICES
SYSTEM**

Jan 2020 CE

SOPs: ASA for ACS; BEFAST documentation
Procedures: Drug administration; Microdot strips;
Cardiac arrest
Policies: B1: CT Bypass; I4 Impaired Behavior

Find field...

Save

Visibility Filter

Start Here - Setting values here sets visibility and validation rule changes for this record.

Incident / Patient Disposition: [Dropdown Menu]

Possible Stroke?: No Yes

Was Narcan administered prior to this visit? No Yes

Was Pt involved in a Motor Vehicle Accident? No Yes

Always start in the Visibility Filter



Objectives:

After completing the class and reading the referenced documents, each participant will do the following with a degree of accuracy that meets or exceeds the standards established for their scope of practice without critical error:

Cognitive: Explain the major provisions and rationales of the SOPs, procedures, and policies presented in this micro-learning format so they are applied appropriately to patient situations and documented accurately.

Psychomotor: Accurately assess patients with suspected strokes and document the findings using the Image Trend BEFAST tool. Accurately complete Glucose meter and Controlled substance logs.

Affective: Advocate for Drug-free workplaces; fitness for duty, policy compliance, risk mitigation, and appropriately executed procedures in the safe and timely delivery of EMS care.

Goal: All EMS practitioners are well-informed about updates to policies, procedures, and care and translate this knowledge into clinical practice. Questions and comments welcome. Direct to:

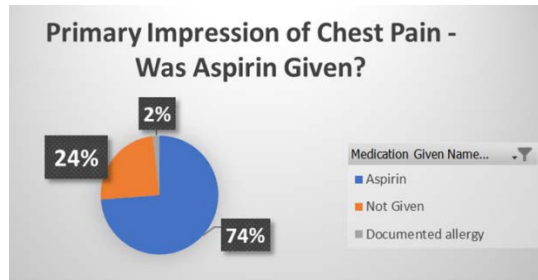
Connie Mattera, MS, RN, LP
EMS Administrative Director
Cmatters@nch.org

January CE – Micro learning modules

- A. ASA screen results: Avoid mischaracterization of impressions; narrative charting of drugs
- B. BEFAST Image Trend documentation
- C. CT bypass criteria; indications for CT scans
- D. Drug administration - 7 Rights ; expiration dates; Storage and handling of MicroDot strips
- E. EMS Replenishment Audit findings / Glucose & Controlled substance logs
- F. I4 Impaired behavior/**Fitness for Duty** policy revision (including revisions based on Illinois Cannabis) Act
- G. Heads up CPR trial – Video
- H. Family Feud CPR

Northwest Community EMS System QI Report: ASA given to patients with Chest Pain

Preliminary data pulled from automated review of PCRs: 932 patients had a Primary Impression of Chest Pain. Of those, 688 (74%) were given ASA, 17 (2%) had a documented allergy, and 227 (24%) were apparently not treated per SOP.



After manual review of all records (thanks to Joe Albert, EGFD), findings look very different.

Approved exceptions/exclusions

| | |
|-----|---|
| 29 | PCRs with 2 different agencies on scene (both wrote report for same pt per policy) with transport by other agency |
| 18 | PCRs with assumed wrong Primary Impression* |
| 11 | PCRs where the patient refused transport to hospital** |
| 118 | PCRs listed a contraindication or reason per SOP for ASA not to be given*** |
| 26 | ASA was given per narrative but not documented in the Meds given section |
| 13 | Narrative gave reason for not giving ASA that was confusing or not necessarily correct |

*Incorrect Primary Impressions selected: Pain from trauma, stroke, behavioral, and others where pt may have c/o pain but per the narrative was not chest pain.

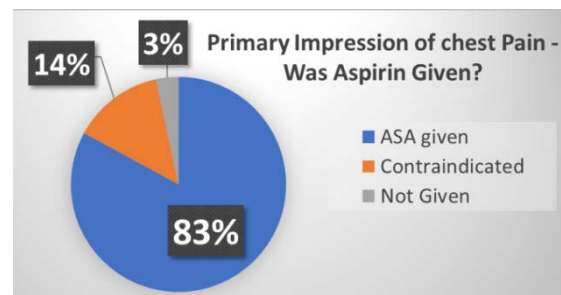
**Around half made no mention of contacting OLMC before releasing patient - concern.

*****Reason for not giving ASA:** Allergy, pt refusing to take ASA due to Primary Care Practitioner telling them not to because of other meds, ASA given prior to EMS arrival (PTA) and other contraindications.

NWC EMSS Final data analysis: N = 932

ASA given to 688 pts +
215 approved exceptions/exclusions
903 (97%) compliant with SOPs

ASA not given when indicated: 29 (3%).



ESO National EMS Quality Index (benchmark): ASPIRIN ADMINISTRATION

There is still work to be done re administration and documentation of ASA given to pts with non-traumatic chest pain.

2018 EMS Index: ASA documented correctly in 55% of cases (N = 182,000)

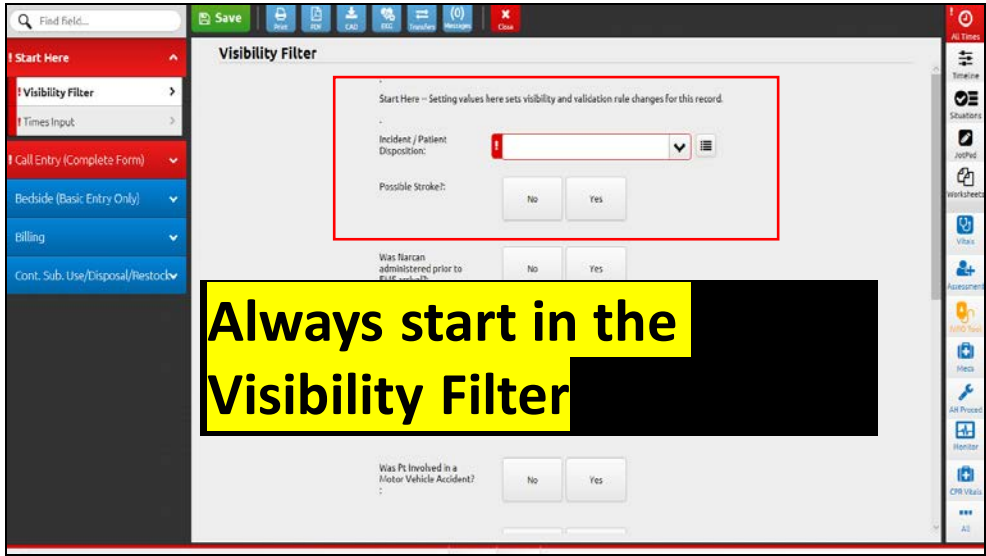
2019 EMS Index: Compliance fell to 52% (N = 270,000)

Main reasons for lack of (or seeming lack of) compliance can be attributed to **miscategorization** and **narrative-only documentation**. In cases where ASA was not given, chest pain was often non-cardiac. In nearly 30% of cases where ASA was not documented in the medications field, administration was noted in the narrative. Choosing an appropriate primary impression and documenting treatments (even those performed prior to EMS arrival) in discrete queryable fields are critical for quality improvement and research efforts.

This was also our experience.

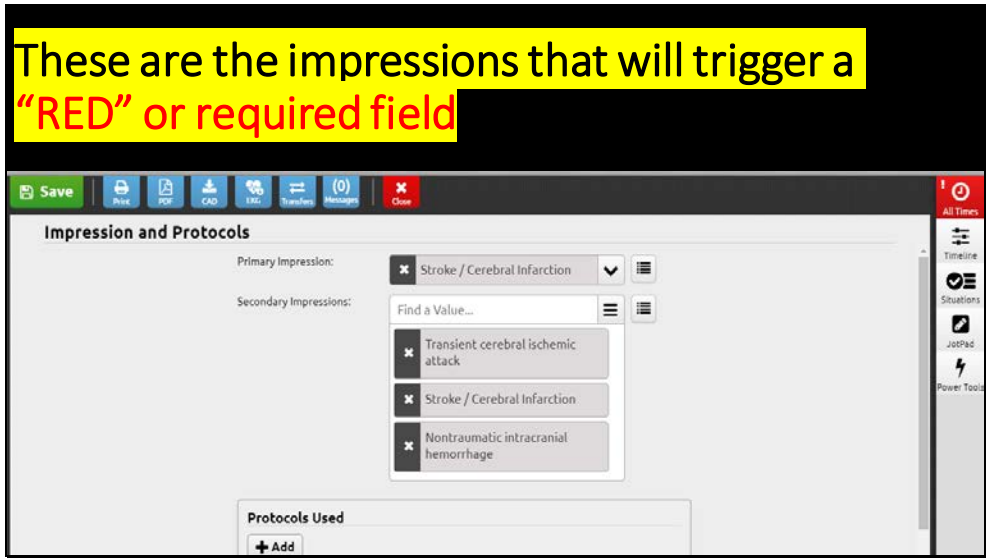
Our Take Away: Accurately select EMS impressions; document all medications administered in Meds Given section; continue to complete clear narratives that fill in details not previously charted.

Slide 1



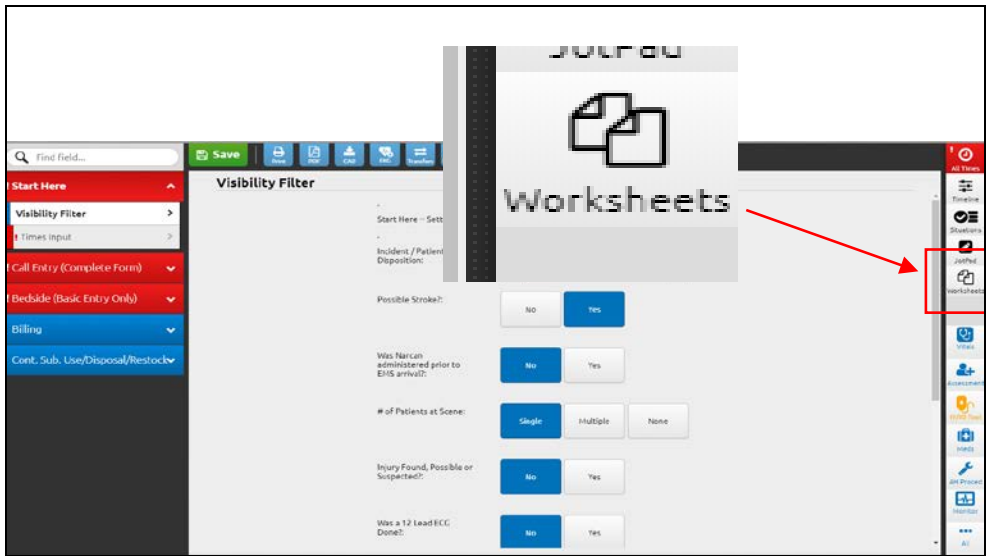
The reason this worksheet is being used is that there is no way to document BEFAST accurately within current ImageTrend programing. This worksheet also allows users to chart multiple stroke assessments during the course of the call.

Slide 2



There can only be one primary impression and many secondary impressions, but any selection will trigger a "RED". The expectation will be to use this worksheet if a stroke scale is completed.

Slide 3



Slide 4

The screenshot shows the BEFAST documentation interface. On the left is a 'Start Here' menu with options: 'Visibility Filter', '1 Times Input', '1 Call Entry (Complete Form)', '1 Bedside (Basic Entry Only)', 'Billing', and 'Cont. Sub. Use/Disposal/Restock'. The main area is titled 'Visibility Filter' and contains fields for 'Start Here - Setting', 'Incident / Patient Disposition', 'Possible Stroke?', 'Was Narcan administered prior to EHS arrival?', and '# of Patients at Scene:'. The '# of Patients at Scene' field has buttons for 'Single', 'Multiple', and 'None'. The 'Injury Found, Possible or Suspected?' field has buttons for 'No' and 'Yes'. A red arrow points to the 'BEFAST' logo in the top right corner.

Slide 5

The screenshot shows the BEFAST documentation interface with the 'Balance' section selected. The 'Balance' section has a dropdown menu with options: 'Balance', 'Eyes', 'Face', 'Arm', 'Speech', and 'Time'. The 'Balance' dropdown is open, showing the 'All No' button. A red arrow points to the 'All No' button. The 'Balance' section contains the following questions and answer options:

- Unsteady gait / bearing? (NEW, EXISTING, No, Unable / Not Testable)
- Did the patient fall? (Yes, No, UNKNOWN)
- Unsuccessful finger-to-nose touch exam? (Yes, No, Not Testable / Not Awake)
- Unsuccessful rapid alternating movements exam? (Yes, No, Not Testable / Not Awake)
- Tilting to one side noted (NEW (R), NEW (L), EXISTING / OLD (R), EXISTING / OLD (L), No)
- Pt complains of vertigo (room spinning) (NEW, EXISTING / OLD, No, Not Testable / Not Awake)

Pro tip: Mark “all no” and then select the box if it’s just one or two yes answers. Don’t forget to select the crew member and time of assessment at the top

Slide 6

The screenshot shows the BEFAST documentation interface with the 'Balance' section selected. The 'Balance' section contains the following questions and answer options:

- Unsteady gait / bearing? (NEW, EXISTING, No, Unable / Not Testable)
- Did the patient fall? (Yes, No, UNKNOWN)
- Unsuccessful finger-to-nose touch exam? (Yes, No, Not Testable / Not Awake)
- Unsuccessful rapid alternating movements exam? (Yes, No, Not Testable / Not Awake)
- Tilting to one side noted (NEW (R), NEW (L), EXISTING / OLD (R), EXISTING / OLD (L), No)
- Pt complains of vertigo (room spinning) (NEW, EXISTING / OLD, No, Not Testable / Not Awake)

See exam form in SOP

Slide 7

| Eyes | | | | | | |
|------------------------------------|---------|----------|--------------------|--------------------------|----|--------------------------|
| Vision - BLURRED | NEW (R) | NEW (L) | EXISTING / OLD (R) | EXISTING / OLD (L) | No | Not Testable / Not Awake |
| Double Vision (Diplopia) | NEW (R) | NEW (L) | EXISTING / OLD (R) | EXISTING / OLD (L) | No | Not Testable / Not Awake |
| Loss of any field of vision | NEW (R) | NEW (L) | EXISTING / OLD (R) | EXISTING / OLD (L) | No | Not Testable / Not Awake |
| Photophobia (Light Sensitivity)? | NEW | EXISTING | No | Not Testable / Not Awake | | |
| Ptosis (Droopy Eyelid)? | NEW (R) | NEW (L) | EXISTING / OLD (R) | EXISTING / OLD (L) | No | Not Testable / Not Awake |
| Horizontal gaze (fixed deviation)? | NEW (R) | NEW (L) | EXISTING / OLD (R) | EXISTING / OLD (L) | No | Not Testable / Not Awake |

Slide 8

| Face | | | | | | |
|--|---------|---------|--------------------------|--------------------|----|--------------------------|
| <input checked="" type="checkbox"/> All No | | | | | | |
| Smile Asymmetrical? | NEW (R) | NEW (L) | EXISTING / OLD (R) | EXISTING / OLD (L) | No | Not Testable / Not Awake |
| Unable to Wrinkle Forehead? | Yes | No | Not Testable / Not Awake | | | |
| Face Resting Asymmetry Noted | NEW (R) | NEW (L) | EXISTING / OLD (R) | EXISTING / OLD (L) | No | |

Slide 9

| Arm | | | | | | |
|--|---------|---------|--------------------|--------------------|----|--------------------------|
| <input checked="" type="checkbox"/> All No | | | | | | |
| Arm falls slowly / drifts | NEW (R) | NEW (L) | EXISTING / OLD (R) | EXISTING / OLD (L) | No | Not Testable / Not Awake |
| Arm falls FLACCID or DROPS? | NEW (R) | NEW (L) | EXISTING / OLD (R) | EXISTING / OLD (L) | No | Not Testable / Not Awake |
| Speech | | | | | | |

Slide 10

Speech All No

Ask patient to repeat a simple phrase (you can't teach an old dog new tricks)

| | | | | |
|--|-----|----------------|----------------|--------------------------|
| Is there expressive aphasia? (Pt knows what he or she wants to say, yet has difficulty communicating it to others) | NEW | EXISTING / OLD | No | Not Testable / Not Awake |
| Is there receptive aphasia? (Pt does not understand commands) | NEW | No | EXISTING / OLD | Not Testable / Not Awake |
| Is there word substitution? (Pt exhibits verbal paraphrasia) | NEW | EXISTING / OLD | No | Not Testable / Not Awake |
| Pt exhibits dysarthria (difficult or unclear articulation of speech)? | NEW | EXISTING / OLD | No | Not Testable / Not Awake |

See exam in SOPs

Slide 11

Time

≤ 3.5 hrs > 3.5 hrs ***Please refer to "Stroke Information" section on the run form to document TIME (last known well)***

PER the SOP this is the time window that must be documented (refer to the next slide)

Slide 12

Find field...

Start Here

Call Entry (Complete Form)

- Personnel & Unit
 - CAD / Dispatch
 - Other Agencies at Scene
 - Incident Address
 - Patient
 - Patient Address & Phone
 - Signs & Symptoms
 - Medications
 - Allergies
 - Past Medical History
 - Trauma Information
 - 12 Lead & STEMI
 - ET/CO2 Wave Form Shape
 - Stroke Information
 - Impression and Protocols
 - Destination / OLMC Contact

No Patient Name Entered

Slide 13

Stroke Information

Arrived at Patient Time: 12/14/2019 09:35:43

Severe Headache?: No Unknown **Yes**

Head Trauma At Onset?: **No** Yes Unknown

Time of Symptom Onset: 12/14/2019 08:18:09

Time the Patient was Last Known Well: 12/14/2019 03:36:18

IF UNABLE TO OBTAIN a TIME click the Circle on the Right

Callback Phone # for someone who has Knowledge about the Stroke Patient

+ Add

END OF PAGE

Click "Add" to open the next window

→ Next

The next window is the next slide

Slide 14

Callback Phone #

+ Add Another **✓ OK** **✕ Cancel**

Name of person who has knowledge about the Stroke Patient (If none type N/A): Elaine

Relation: **✕ Other**

Callback Phone # for someone who has Knowledge about the Stroke Patient: 999 999 9999

Enter all 9's if unable to get phone #

Slide 15

BEFAST

Workshop: House, Thomas (179) 12/14/2019 09:13

OK **Cancel** **Delete**

Balance **All No**

Unsteady gait / bearing? **Unstable** **Unstable** **Unstable** **Unstable / Not Testable**

Arm **Unsteady gait / bearing?** **Unstable** **Unstable** **Unstable** **Unstable / Not Testable**

Speech **Unsteady gait / bearing?** **Unstable** **Unstable** **Unstable** **Unstable / Not Testable**

Time **Unsteady gait / bearing?** **Unstable** **Unstable** **Unstable** **Unstable / Not Testable**

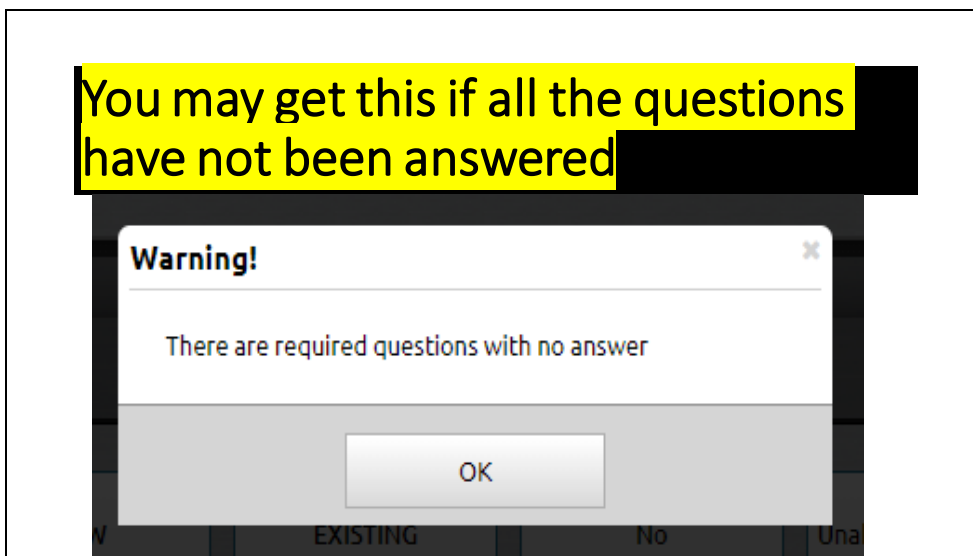
nose touch exam? **Yes** **No** **Not Testable / Not Awake**

Unsuccessful rapid alternating movements exam? **Yes** **No** **Not Testable / Not Awake**

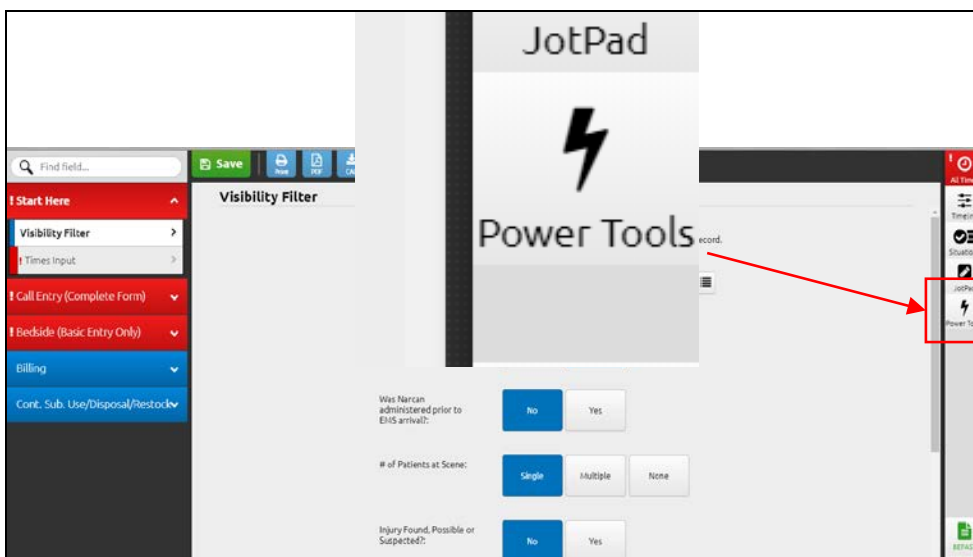
Tilting to one side noted **NEW (R)** **NEW (L)** **EXISTING / OLD (R)** **EXISTING / OLD (L)** **No**

When You're Done click OK

Slide 16

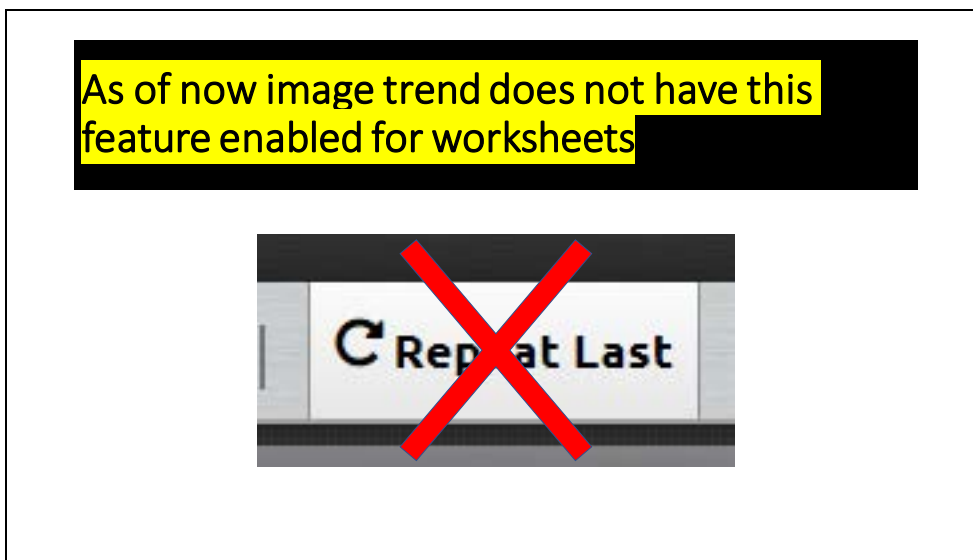


Slide 17



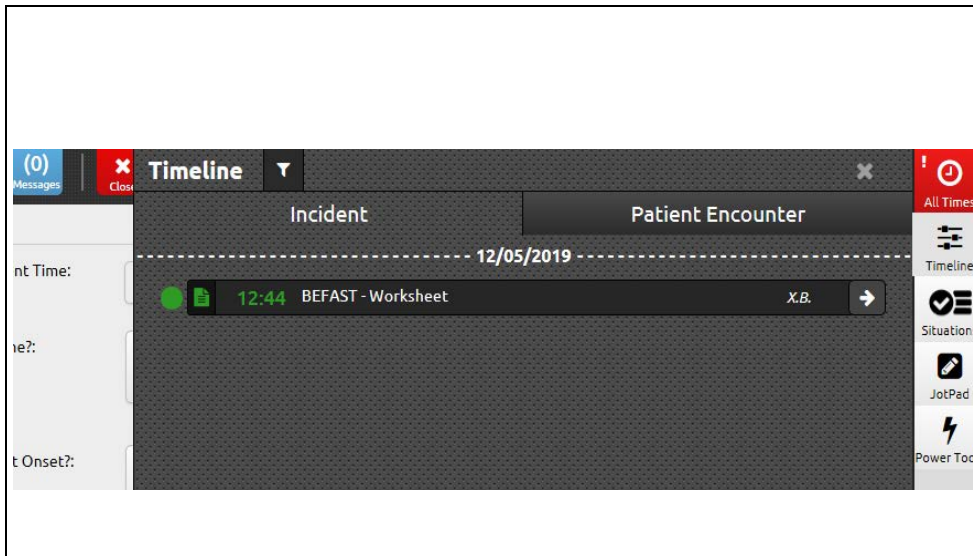
Want to switch back to Power Tools, click here...

Slide 18



If you did a second exam with no changes it would've been nice to have this feature, but no go... For now...

Slide 19



You can do many worksheets and they will appear here in the time line

Slide 20

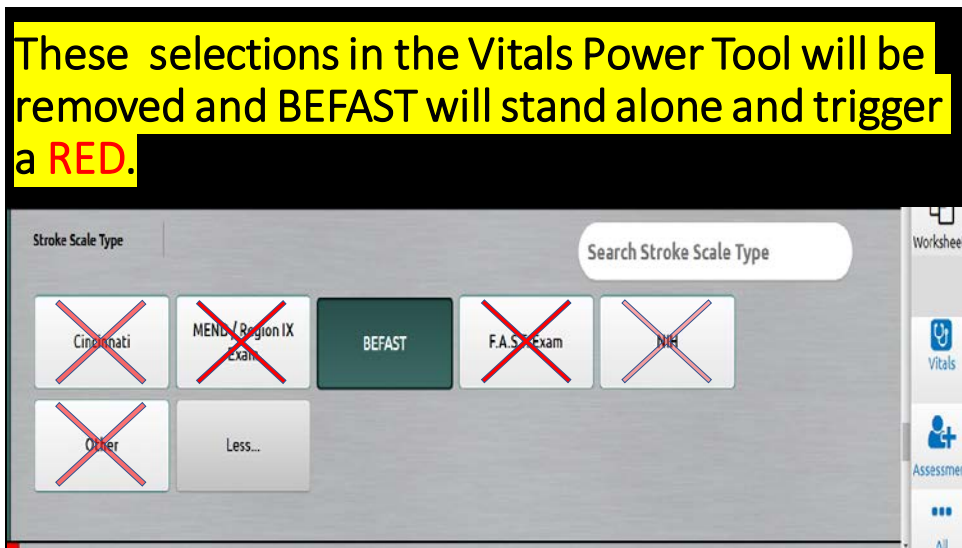
BEFAST
12/5/2019 - 12:44 - Beltran, Xavier (236)

| Question | Answer | Notes |
|--|--------------------|-------|
| Balance | | |
| Unsteady gait / bearing? | NEW | |
| Did the patient fall? | Yes | |
| Unsuccessful finger-to-nose touch exam? | Yes | |
| Unsuccessful rapid alternating movements exam? | Yes | |
| Tilting to one side noted | NEW (L) | |
| PT complains of vertigo (room spinning) | EXISTING / OLD | |
| Eyes | | |
| Vision - BLURRED | NEW (R) | |
| Double Vision (Diplopia) | No | |
| Loss of any field of vision | EXISTING / OLD (R) | |
| Photophobia (Light Sensitivity)? | EXISTING | |
| Ptosis (Droopy Eyelid)? | NEW (R) | |
| Horizontal gaze (fixed deviation)? | No | |
| Face | | |
| Smile Asymmetrical? | No | |
| Unable to wrinkle Forehead? | No | |
| Face Resting Asymmetry Noted | No | |
| Arm | | |
| Arm falls slowly / drifts | No | |
| Arm falls FLACCID or DROPS? | No | |
| Speech | | |
| Ask patient to repeat a simple phrase (you can't teach an old dog new tricks) | | |
| Is there expressive aphasia? (PT knows what he or she wants to say, yet has difficulty communicating it to others) | NEW | |
| Is there receptive aphasia? (PT does not understand commands) | No | |
| Is there word substitution? (PT exhibits verbal paraphasia) | No | |
| PT exhibits dysarthria (difficult or unclear articulation of speech)? | No | |

BEFAST will print as the last page(s).

If you took more than one assessment, more pages.

Slide 21



BEFAST is the only stroke exam that should be elected. By selecting BEFAST in the vitals PowerTool and choosing an impression other than the ones in slide #2, ex, AMS, pain, etc. it will require a BEFAST tool. Validation will be turned on February 1st 2020. BEFAST is up and working now but without it turning RED (no validation is applied) yet.

HUGE THANKS to Jim Klein (AHFD), CARS chair, for co-creating this BEFAST charting tool along with Patrick Sennett (Good Sam Region Image Trend administrator) and for creating this slide deck for CE.

| EMS STROKE SCREEN/STROKE ALERT CHECKLIST | | | | | |
|---|---|---|--|--|---|
| Pt. name | | DOB | | Gender | |
| Witness name | | Call back number: | | | |
| Chief complaint | | | | | |
| Severe headache or seizure at onset? | | | | Y | N |
| Head trauma at onset? | | | | Y | N |
| EXAM – NEW ONSET - BE FAST - Complete ENTIRE Stroke Screen | | | | ✓ IF ABNORMAL | |
| B | BALANCE /Coordination – Unsteady, fall? Finger to nose, rapid alternating movements, heel to shin; note ataxia; tilting to one side, vertigo | | | R | L |
| E | EYES : Vision changes: blurred, diplopia, loss of visual field; photophobia Eye position; ptosis. Horizontal gaze: gaze palsy or fixed deviation | | | R | L |
| F | FACE : Smile, show teeth; close eyelids, wrinkle forehead Note unilateral weakness/asymmetry: | | | R | L |
| A | Motor – ARM (close eyes and; hold out both arms for 10 sec) Normal; Abnormal: drift to no effort against gravity | | | R | L |
| S | SPEECH (Repeat "You can't teach an old dog new tricks" or sing Happy Birthday <input type="checkbox"/> Expressive/receptive aphasia <input type="checkbox"/> Dysarthria <input type="checkbox"/> Word substitution or retrieval deficits | | | <input type="checkbox"/> Normal <input type="checkbox"/> Abnormal | |
| T | TIME last known well /normal pt baseline <input type="checkbox"/> ≤ 3.5 hrs <input type="checkbox"/> >3.5 hrs | | | Time: | |
| Other assessments | Level of consciousness: AMS? GCS: E V M | | | Total GCS: | |
| | Orientation: Answers accurately: Name, age, month of year; location, situation | | | X (1-4) | |
| | Responds to commands: open/close eyes | | | Y | N |
| | Gross hearing – Note new onset unilateral hearing deficit; sound sensitivity | | | R | L |
| | Say "Ah", palate rises, uvula midline; Stick out tongue: remains midline (note abnormalities) | | | R | L |
| | Neglect: one sided extinction (visual, auditory, sensory) | | | R | L |
| | Motor: Lift leg. Normal; Abnormal: drift to no effort against gravity | | | R | L |
| | Sensory: Focal changes/deficits (face, arms, legs); paresthesias, numbness | | | R | L |
| | ANS: Sweating only one side | | | R | L |
| Neck stiffness (cannot touch chin to chest; vomiting) | | | | | |
| PMH | <input type="checkbox"/> None <input type="checkbox"/> A-Fib/Flutter <input type="checkbox"/> AVM, tumor, aneurysm <input type="checkbox"/> Bleeding disorders <input type="checkbox"/> CAD/Prior MI/Heart/vascular dx <input type="checkbox"/> Carotid stenosis <input type="checkbox"/> Pregnant (or up to 6 wks. post- partum) <input type="checkbox"/> Depression <input type="checkbox"/> Diabetes <input type="checkbox"/> Drug/Alcohol Abuse <input type="checkbox"/> Dyslipidemia <input type="checkbox"/> Family Hx stroke <input type="checkbox"/> HF <input type="checkbox"/> Hormone RT <input type="checkbox"/> HTN <input type="checkbox"/> Migraine <input type="checkbox"/> Obesity <input type="checkbox"/> Previous stroke <input type="checkbox"/> Previous TIA: <input type="checkbox"/> Previous intracranial surgery/bleed <input type="checkbox"/> Serious head trauma <input type="checkbox"/> *Prosthetic valve <input type="checkbox"/> PVD <input type="checkbox"/> Renal failure <input type="checkbox"/> Sleep apnea <input type="checkbox"/> Smoker/tobacco use | | | | |
| MEDS | Anticoagulant use in 48 hrs: <input type="checkbox"/> warfarin/Coumadin/Jantoven <input type="checkbox"/> apixaban/Eliquis <input type="checkbox"/> argatroban <input type="checkbox"/> dabigatran/Pradaxa <input type="checkbox"/> desirudin/Privask <input type="checkbox"/> edoxaban/Savaysa <input type="checkbox"/> enoxaparin/Lovenox <input type="checkbox"/> fondaparinux/Arixtra <input type="checkbox"/> LMW heparin <input type="checkbox"/> lepirudin/Refludan <input type="checkbox"/> rivaroxaban/Xarelto Platelet inhibitors: <input type="checkbox"/> ASA <input type="checkbox"/> clopidogrel/Plavix <input type="checkbox"/> dipyridamole/Aggrenox <input type="checkbox"/> prasugel/Effient <input type="checkbox"/> ticagrelor/Brilinta <input type="checkbox"/> ticlodipine/Ticlid <input type="checkbox"/> Cocaine/other vasoconstrictors, e.g. amphetamines: PCP | | | | |
| Destination options: | | | | | |
| <input type="checkbox"/> Nearest hospital: | | Patient unstable | | | |
| <input type="checkbox"/> Nearest SC (Primary or Comp) | | <input type="checkbox"/> Onset/LKW (normal baseline) <3.5 hrs with acute S&S of stroke | | | |
| <input type="checkbox"/> Nearest Comprehensive SC | | <input type="checkbox"/> Onset/LKW (normal baseline) >3.5 hrs with acute S&S of stroke AND <input type="checkbox"/> Travel time <15 min longer than to nearest SC | | | |
| Stroke alert called to (OLMC hospital) | | | | Time: | |
| Receiving hospital | | | | Time beyond PSC: | |
| Comprehensive SCs (Can do thrombectomy up to 24 H after S&S onset) <input type="checkbox"/> ABMC <input type="checkbox"/> LGH <input type="checkbox"/> NCH <input type="checkbox"/> RES | | | | | |

Hospitals may declare Selective Bypass – e.g., CT scanners are down

B1 Hospital Resource Limitation/Bypass (Eff 10-10-19) – page 3

E. IDPH and Region IX-approved criteria for declaring selective bypass

1. After implementation of the local EMS System's Hospital Peak Census Policy (hospital experiencing near capacity census with limited access to beds, equipment, and/or support resources impacting patient care) and the hospital's surge capacity plan has been implemented (including use of overflow spaces) and after consultation with appropriate hospital administration, **the determination has been made that critical limitations have caused a need for EMS to Bypass the hospital for certain types of patients.** ...Hospital diversion should be based on a significant resource limitation and may be categorized as a Systems of Care patient (STEMI, Stroke, and Trauma) or other EMS transports. **The decision to go on Bypass (or resource limitation) status should be based upon meeting the following criteria, and compliance with ongoing monitoring.**

Lack of an essential resource for a given type of class of patient (i.e. stroke, STEMI, etc.) Peak census plan has been implemented.

- a. There are no available monitored beds within traditional pt care and surge pt care areas with appropriate monitoring for pt needs;
- b. Unavailability of credentialed/trained staff appropriate for patient needs per hospital policy; and/or
- c. **Unavailability of essential diagnostic and/or interventional equipment or facilities essential for patient needs.**

If a hospital has declared selective bypass due to CT scanners down – DO NOT transport patients with the following to their location:

Indications for HEAD CT:

- Acute head injury; suspected intracranial hematoma (epidural, subdural)
- Suspected stroke, TIA, subarachnoid hemorrhage
- Severe headaches; unexplained change in mental status; seizure

Indications for SPINE CT:

Acute spine trauma (injury within previous 48 hours) where there is a higher than average likelihood of fracture or dislocation, bulging or herniated disc, or mechanical instability of the spine that requires spine motion restriction. Pt may c/o midline spine pain, have visible injury, or findings of neuro loss or deficit.

Indications for CHEST CT

- Chest trauma with possible pneumothorax, hemothorax, rib fractures and flail segments, pulmonary contusion, disruption to the thoracic aorta, diaphragmatic rupture
- Hemoptysis (bloody sputum)
- Possible pulmonary embolism; acute RV strain
- Possible pleural abnormalities (empyema or local effusion)

Indications for ABDOMINAL/PELVIC CT

- Acute abdominal/pelvic trauma
- Evaluation of acute abdominal or pelvic pain
- Infections such as appendicitis, pyelonephritis, or infected fluid collections (abscesses)
- Inflammatory bowel disease (ulcerative colitis, Crohn's disease), pancreatitis, liver cirrhosis
- Kidney and bladder trauma or stones
- Possible Abdominal Aortic Aneurysm (AAA)

Drug administration – 7 rights

Several **recent drug errors** have demonstrated a gap in execution of System procedure.

1. Wrong drug given (non-controlled drug given when controlled substance was indicated)
2. Wrong dose of ketamine given
3. IV drip containing norepinephrine (with norepinephrine vial taped to bag) was temporarily run WO by receiving hospital because nurse did not see expected IV label on IV bag and tubing.

How could each of these have been prevented?

| 7 RIGHTS of medication administration - RIGHT | |
|--|---|
| Patient: Confirm absence of allergy | |
| Drug | ✓ package/drug container for name, concentration, integrity, expiration date. Verify sterility of parenteral medication. Prepare dose; controlled substances, IV inopressors; and high risk meds (peds dosing/others per protocol) require independent cross-check with qualified practitioner before giving. |
| Dose | |
| Timing of administration: See drug profile or individual SOP | |
| Route & site: See above | |
| Reason: Must be indicated and not contraindicated for patient | |
| Documentation: Must note drug, dose, route; time of administration, and patient response for each individual dose | |

Sheets of norepinephrine drip labels were created when drug was distributed in 2016. *Do you have them?*

NOREPINEPHRINE 4mg·in·1000mL (4·mcg/mL) NOREPINEPHRINE 4mg·in·1000mL (4·mcg/mL) NOREPINEPHRINE 4mg·in·1000mL (4·mcg/mL)

No unlabeled syringe should ever be used to draw up meds and then handed to another PM to give.



Check expiration dates!

- Ensure there is a robust process for checking for expired supplies with daily ambulance inventories
- No patient care supplies or products should be used past their expiration (manufacturer's or expiration upon opening) unless specifically approved in advance by the EMS MD.
- Don't overstock!
- Exchange in a timely manner per System policy.

We are aware that many **peds i-gels** are expiring in early 2020 and are taking steps with the vendor to have these items replaced prior to expiration.

Storage and handling of Microdot strips

- Store the strips in their original vial in a cool, dry place between 50° and 86° F (10°-30° C). Keep away from sunlight and heat, do not refrigerate or freeze.
- When you take a strip from the vial, close the cap immediately. Use the strip immediately.
- Do not use Microdot® Test Strips >90 days after the vial is first opened. **Write the words, "Discard date" on the vial and note a date 90 days from when strips were first opened.**
- Also check the manufacturer's expiration date on the vial. In the case of a reserve vehicle where the strips have been unopened, the strips may expire from non-use. If the expiration or discard date has passed, do not use the strips.
- Always code the meter for each new vial of strips according to the user manual.



EMS Replenishment Audit Objective, Scope & Findings

Background

In 2019, Plante Moran (PM) conducted a risk assessment that identified components of the Emergency Medical Services (EMS) replenishment processes.

Audit Objective

To assess whether EMS replenishment processes and controls in place are in accordance with policies, procedures, and regulations.

Audit Scope included the following areas:

1. Evaluated the EMS's ambulance restocking practices for adherence with the EMS MD approved Drug, Supply, and Equipment list.
2. Validated that medications, supplies, and equipment were adequately stored, tracked, and recorded and access was restricted to approved personnel.
3. Reviewed controlled substance medication practices related to ambulance restock, return of damaged or expired products, diversion, and waste disposal for adherence with state regulations and the EMS's policies and procedures.
4. Confirmed policies and procedures were documented and consistently followed.

Audit Conclusions

The audit identified nine issues.

Action plans shall be created and presented in Feb 2020 CE to address each issue.

1. Inconsistent controlled substance wastes & returns
2. EMS replenishment of medications from ED Pyxis
3. Inconsistently documented and reviewed Controlled Substance Logs
4. Lack of documentation of medication diversion monitoring
5. Undocumented replenishment of EMS medications from the pharmacy department
6. Lack of inventorying of EMS non-controlled substance medications and supplies
7. Lack of safeguards around EMS medications and supplies
8. Lack of proper disposal of EMS non-controlled substance meds and supplies
9. EMS Pyxis bins maintenance

Glucose & Controlled Substance Logs

Federally required logs are being redesigned to allow 3 options:

- Totally digitized with information and signatures entered into electronic software and exported via pivot tables to an Excel log
- PDF fillable forms to be entered into a computer with electronic signatures
- Traditional paper logs and original signatures

Reminder NOW:

- **Controlled Substances** must be visually inspected, correct inventories confirmed, and Logs signed by two different licensed paramedics each day – preferably one off-going and one on-coming, to verify the chain of custody from day to day (shift to shift).
- Actual inventory numbers must be entered onto the logs. No ditto marks are acceptable.
- There must be no gaps in the chain of custody of these drugs. All exceptions or missing drugs must be immediately explored, explained, and replaced.
- All Controlled Substance logs must be reviewed and signed by the PEMSCs & HEMSCs by the 4th week of the following month

Target implementation date of action plans and new policies after Feb 2020 CE classes

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I. **Introduction**

Drug abuse is much higher among paramedics and EMTs compared to other emergency responder professions. The limited research has not yet come to conclusions as to why, but it is believed to be a combination of factors including easy access to potent and addictive prescription medications and high stress exposure levels
<https://www.addictioncenter.com/addiction/emergency-responders/>.

II. **Purpose**

To promote safe practice standards and working environments that assure quality patient care and to protect the health and welfare of Northwest Community EMS System (NWC EMSS) students and members and the patients they serve. In achieving this goal, the NWC EMSS complies with Federal and State drug free workplace laws.

III. **Definitions**

- A. **Controlled substances:** Defined in Section 202 of the Controlled Substances Act, 21 U.S.C. 812 that places all substances which are in some manner regulated under existing federal law into one of five schedules (See Table 1). This placement is based upon the substance's medical use, potential for abuse, and safety or dependence liability. Some states (including Illinois) have passed laws allowing for the medical or recreational use of marijuana. These state laws do not alter the fact that marijuana remains a Schedule I medication under federal law.
- B. **Drug:** Articles intended for use in the diagnosis, cure, mitigation, treatment, or prevention of disease and a substance other than food intended to affect the structure or any function of the body of man or animals (FDA, 2017).
- C. **Drug-free workplace** (Drug-Free Workplace Act of 1988): Workplace where "the unlawful manufacture, distribution, dispensation, possession, or use of a controlled substance is prohibited."
- D. **Fitness for duty:** EMS personnel must have the skills, knowledge, character and health to practice their profession safely and effectively. If an EMS practitioner's fitness for duty is impaired they may be unable to practice safely and effectively.
- E. **Illicit drugs:** Any drug or controlled substance, the sale or consumption of which is illegal or any legally obtainable controlled substance, which has not been specifically prescribed by a licensed physician for treatment purposes or is not being used for prescribed purposes.
- F. **Impaired behavior/practice / Behavior under the influence:.** Occurs whenever a person is behaving in a manner not suitable for the workplace or behavior that may be affected by drugs in any detectable manner including but not limited to: misconduct or impairment of physical or mental ability. This can be established by a lay person's opinion, a professional opinion or a scientifically validated test (e.g., person's blood alcohol concentration is 0.01 or greater. In the case of illegal or prescribed drugs, any detectable presence of drug metabolites).

Examples of observable behaviors suggesting impairment include, but are not limited to: drowsiness, lack of mental alertness, odor of alcohol on breath, slurred/incoherent speech, red eyes, aggressive behavior/loud voice, significant unexplained mood changes, abusive language, disheveled appearance, excessive or unexplained work errors, suspicion of diversion of medications or theft or forgery of prescriptions, lack of manual dexterity/coordination (eye, hand, gait, or balance) unexplained work-related accident or injury (causing or participating in any work-related accident or injury), frequent unexplained absences from work area (excessive absenteeism or tardiness that has no other logical documented explanation), comments

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referring to recent drug use, and disclosure that the person has undergone recent treatment of substance use disorder

Under Illinois law, **employers may consider workers to be impaired if** the employer "has a good faith belief" that employees are showing symptoms that impact their job performance, such as those related to speech, physical dexterity, agility, coordination and demeanor, among others.

- G. **Reasonable grounds:** "Reasonable grounds" is based on documentation of specific, contemporaneous physical, behavioral, or performance indicators consistent with probable substance abuse or psychiatric or other medical conditions (see above definition of impaired behavior/behavior under the influence)
- H. **Substance use disorders** occur when the recurrent use of alcohol and/or drugs causes clinically significant impairment, including health problems, disability, and failure to meet major responsibilities at work, school, or home (www.samhsa.gov/find-help/disorders)

IV. POLICY

- A. The EMS Medical Director (EMS MD) requires that all System members perform their EMS-related duties competently and effectively without impaired judgment, coordination or skill in a manner that does not jeopardize the health and safety of patients, bystanders, colleagues, or themselves any adverse effects due to the use or abuse of any drug, medication, or intoxicating liquor.
- B. **Self-reporting of possible drug effects:** EMS students and licensed personnel are required to inform their designated supervisor when reporting for EMS-related duty if their use of any drug may adversely affect their ability to satisfactorily perform their EMS job duties or may impair their safety or the safety of others (e.g. drowsiness, muscle relaxation). If it is determined that the EMS practitioner's drug use (medically necessary or prohibited) would adversely affect their job performance, the person shall be removed from EMS-related duties until their cognition and behavior is unimpaired.
- C. **The following activities or actions are prohibited while acting as an agent of the NWC EMSS:**

1. "Intoxication or personal misuse of any illicit drugs, prescribed drugs or the use of intoxicating liquors, narcotics, controlled substances, or stimulants in such manner as to adversely affect the delivery or performance of activities in the care of patients requiring EMS interventions.

Adversely affect means anything which could harm the patient or treatment that is administered improperly." - EMS Rules.

The System will review all allegations of impaired behavior/behavior under the influence and will take appropriate corrective action against any EMS practitioner who tests positive for any Federally designated drugs of abuse without Medical Review Officer (MRO) approval and/or one who uses legal substances in a manner that results in impaired behavior during any activity associated with the EMS program.

Marijuana use: Any products with >0.3% THC, however, remain a Schedule I substance as per Drug Enforcement Administration (DEA) regulation. See the Illinois Cannabis Regulation and Tax Act (HB 1438); Eff. Jan. 1, 2020.

"The Illinois General Assembly finds and declares that employee workplace safety shall not be diminished because of this act and employer workplace policies shall be interpreted broadly to protect employee safety."

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Therefore, while recreational marijuana use in adults may be legal in Illinois after 1/1/20, it is still a schedule I controlled substance on a Federal basis and its use is prohibited while on EMS duty or on call in a manner that would cause EMS personnel to demonstrate impaired behavior or behavior under the influence when reporting for duty.

Employers may continue to enforce drug-free workplaces and “reasonable” zero tolerance policies “concerning drug testing, smoking, consumption, storage or use of cannabis in the workplace or while on call”. **Workers are considered to be on call when** they’re scheduled, with at least 24 hours’ notice, to be on standby or working. EMS drug screens must show negative results for THC while on duty per employer policy

These provisions do NOT involve products sold legally as medical marijuana by prescription and/or products containing CBD. While CBD and THC possess similar chemical structures, their effects are quite different. Humans have 2 endogenous cannabinoid receptors: cannabinoid receptor type 1 (CB1) and cannabinoid receptor type 2 (CB2). THC activates CB1, which is responsible for its psychoactive properties. CBD does not directly act on CB1 and carries a different pharmacologic profile. CBD appears to have a neuroprotective effect and mitigates the incidence of THC-induced anxiety, psychosis, and cognitive impairment.

2. "Unauthorized use or removal of controlled substances, supplies, or equipment from any ambulance, health care facility, institution, or other work place location" (EMS Rules).
 3. The unlawful use, possession, sale, manufacture, distribution, dispensation, exchange, of illegal alcohol, drugs and/or controlled substances.
 4. The diversion of EMS drugs intended for patients to a System member's own use.
- D. The NWC EMSS strongly advocates prevention, recognition, and treatment of substance use disorders and providing support for those seeking or already in recovery. System members will aggressively recognize, intervene, attempt to rehabilitate and restore to health any EMS personnel whose practice is impaired as a result of substance use disorder, psychological dysfunction or addiction to alcohol, drugs, or other chemicals.
- E. The EMS System respects the employee-employer relationship. The EMS System shall continue to collaboratively work with all Providers to investigate and resolve on-duty occurrences of impaired behavior/behavior under the influence impairment. Each System Provider Agency must affirm the existence of personnel policy(ies) relative to Fitness for Duty and a Drug-free Workplace Program that includes, but is not limited to the management of EMS personnel who are impaired or suspected to be impaired while on duty or on call, as a part of their System Agreement.
- F. A drug-free workplace program shall have at least five key components:
1. A written policy
 2. Employee education
 3. Supervisor training
 4. An employee assistance program (EAP) to aid rehabilitation; and criteria for monitoring the individual upon return to duty.
 5. Drug testing, interpretation, validation and use of the results
- G. An EMS practitioner must report to the EMS MD any criminal drug statute conviction, no later than five days after such conviction.

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- H. *In the event that any rule of the Department or an EMS Medical Director that requires testing for drug use as a condition of the applicable EMS personnel license conflicts with or duplicates a provision of a collective bargaining agreement that requires testing for drug use, that rule shall not apply to any person covered by the collective bargaining agreement. (Sources: P.A. 100-1082, eff. 8-24-19; 101-81, eff. 7-12-19. 101-153, eff. 1-1-20.)*

V. **PROCEDURE IN THE EVENT OF AN ALLEGED OCCURRENCE of IMPAIRED BEHAVIOR**

- A. **Impaired behavior observed in work environment** - **Report impairment to immediate supervisor:** When, in the opinion of any System member, a student or member is demonstrating any behavior or conduct on duty that is impaired/behavior under the influence and which evidences reasonable grounds or probable cause to suspect impairment; or possession, sale or delivery while on duty of illegal prohibited drugs or alcoholic beverages; or presence of illegal prohibited drugs or alcoholic beverages; or of diverting drugs intended for a patient to their own use, regardless of the drug involved, this suspicion must be immediately reported to the person's immediate supervisor for implementation of the EMS Education Program or employer's Drug-Free Workplace/Fitness for Duty policy and procedure or applicable personnel policies.
- B. **Impaired behavior observed at hospital:** If a hospital employee suspects that an EMS student or practitioner is demonstrating impaired behavior/behavior under the influence impaired practice, they shall initiate a Request for Clarification form per Policy G-1 and immediately contact the individual's direct supervisor. The System student or member suspected of having impaired behavior/behavior under the influence shall be retained at the hospital until an administrative representative of the Education Program or employer arrives to begin an investigation.
- C. **Discovery of facts/investigation:** An investigation will be conducted immediately by the EMS Education Program or person's employer to determine the possible validity of the reported impairment or violation of System standards. If the allegation is sustained and the investigation reveals that impaired practice exists, and/or System standards were breached, the supervisor must immediately consult with the EMS MD or his designee and immediate steps to temporarily prevent further patient contact will be implemented.
- D. **Suspension of EMS privileges:** If the allegation is sustained, and/or for probable cause, the System member has not been removed from EMS duty by their employer, the EMS MD may immediately suspend EMS privileges, pending further action to be taken by the member's employer in consultation with the EMS MD and/or his designee.
- E. **Due process rights:** System personnel found to have violated this policy will be afforded Due Process as specified in System Policies and pursuant to Section 535.260 of the EMS Rules. For just cause, disciplinary action by the EMS MD may include a recommendation to the Illinois Department of Public Health that the EMT's license be suspended or revoked.
- F. **Consequences of drug misuse conviction:** System members convicted of violations of criminal drug statutes must satisfactorily participate in drug abuse assistance or a rehabilitation program, or face sanctions up to and including a recommendation for revocation of licensure to the Illinois Department of Public Health. Any treatment will be monitored by the employer either through their EAP or use of an outside referral.

EMS Act after amendment by P.A. 101-153 Sec. 3.50. Emergency Medical Services personnel licensure levels. subsection (d)8: IDPH may Suspend, revoke, or refuse to issue or renew the license of any licensee, after an opportunity for an impartial hearing before a neutral administrative law judge appointed by the Director, where the preponderance of the evidence shows one or more of the following:

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1. (E) The licensee is physically impaired to the extent that he or she cannot physically perform the skills and functions for which he or she is licensed, as verified by a physician, unless the person is on inactive status pursuant to Department regulations;
2. (F) The licensee is mentally impaired to the extent that he or she cannot exercise the appropriate judgment, skill and safety for performing the functions for which he or she is licensed, as verified by a physician, unless the person is on inactive status pursuant to Department regulations;
3. (G) The licensee has violated this Act or any rule adopted by the Department pursuant to this Act; or
4. (H) The licensee has been convicted (or entered a plea of guilty or nolo-contendere) by a court of competent jurisdiction of a Class X, Class 1, or Class 2 felony in this State or an out-of-state equivalent offense.

G. **Reinstatement:** Before reporting back to EMS-related duties after a suspension of medical privileges due to impaired practice, the System member must present to the EMS MD or his designee documentation that he/she has submitted to, and successfully completed, their employer's procedure for investigating and managing (suspected) impaired practice and is now fit for duty. If the suspension results in a leave of absence exceeding 6 months, refer to System Policy I-1 Inactive Status.

VI. Regulations relative to nurses (ECRNs, PHRNs) with impaired practice

- A. "Impaired nurse" means a nurse licensed under this Act who is unable to practice with reasonable skill and safety because of a physical or mental disability as evidenced by a written determination or written consent based on clinical evidence, including loss of motor skills, abuse of drugs or alcohol, or a psychiatric disorder, of sufficient degree to diminish his or her ability to deliver competent patient care. (225 ILCS 65/) Nurse Practice Act.
- B. Select grounds for disciplinary action against nurses under the Illinois Nurse Practice Act (Sec. 70-5):
 1. Unlawful taking, theft, selling, distributing, or manufacturing of any drug, narcotic, or prescription device.
 2. Habitual or excessive use or addiction to alcohol, narcotics, stimulants, or any other chemical agent or drug that could result in a licensee's inability to practice with reasonable judgment, skill or safety.
 3. Physical illness, mental illness, or disability that results in the inability to practice the profession with reasonable judgment, skill, or safety.
 4. Prescribing, selling, administering, distributing, giving, or self-administering a drug classified as a controlled substance (designated product) or narcotic for other than medically accepted therapeutic purposes.
 5. Violating State or federal laws, rules, or regulations relating to controlled substances.
- C. All substance-related violations shall mandate an automatic substance abuse assessment. Failure to submit to an assessment by a licensed physician who is certified as an addictionist or an advanced practice registered nurse with specialty certification in addictions may be grounds for an automatic suspension, as defined by rule.
- D. See Sec. 70-10. Intoxication and drug abuse.
- E. Sec. 70-15. Disciplinary and non-disciplinary options for the impaired nurse.

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F. **Peer Assistance Network for Nurses (PANN)**

PANN exists to support nurses who are chemically dependent. Their Toll-free 24 hour confidential hot line is 1-800-262-2500.

Table 1 **Schedules of controlled substances**

| Schedule | Definitions | Examples |
|------------|--|--|
| I | High abuse potential with no accepted medical use; medications within this schedule may not be prescribed, dispensed, or administered | Heroin, marijuana, ecstasy, gamma hydroxybutyric acid (GHB) |
| II | High abuse potential with severe psychological or physical dependence; however, these medications have an accepted medical use and may be prescribed, dispensed, or administered | Morphine, codeine, hydrocodone, hydromorphone, methadone, oxycodone, fentanyl, methylphenidate, pentobarbital |
| III | Intermediate abuse potential (ie, less than Schedule II but more than Schedule IV medications) | Hydrocodone/acetaminophen 5 mg/500 mg or 10 mg/650 mg; codeine in combination with acetaminophen, aspirin, or ibuprofen; anabolic steroids; ketamine |
| IV | Abuse potential less than Schedule II but more than Schedule V medications | Propoxyphene, butorphanol, pentazocine, alprazolam, clonazepam, diazepam, midazolam, phenobarbital, pemoline, sibutramine |
| V | Medications with the least potential for abuse among the controlled substances | <i>Robitussin AC, Phenergan</i> with codeine |

References/Resources:

US Dept of Health and Human Services, Substance abuse and mental health services administration (SAMHSA). <https://www.samhsa.gov/>

41 U.S. Code CHAPTER 81—DRUG-FREE WORKPLACE

P.A. 100-1082, eff. 8-24-19; 101-81, eff. 7-12-19. 101-153, eff. 1-1-20.

Illinois Cannabis Regulation and Tax Act (HB 1438); Eff. Jan. 1, 2020

(210 ILCS 50/) Emergency Medical Services (EMS) Systems Act.

(225 ILCS 65/) Nurse Practice Act

[Drug and Alcohol Testing Industry Association \(DATIA\)](#)

[Substance Abuse Program Administrators Association \(SAPAA\)](#)

[U.S. Department of Transportation's \(DOT\) Office of Drug and Alcohol Policy and Compliance Substance Abuse and Mental Health Services Administration's \(SAMHSA\) Workplace Helpline](#)

[American Association of Medical Review Officers \(AAMRO\)](#)

[Employee Assistance Professionals Association \(EAPA\)](#)

[Employee Assistance Society of North America \(EASNA\)](#)

<https://www.jems.com/2017/10/01/we-need-to-change-our-approach-to-substance-abuse-in-ems/>

Asbach, M. (2019). CBD: A primer for the PCP. Clinical Advisor.

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