
Chapter 12

RN for Social Justice: How to Read Medical Records

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Nurses for Social Justice

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Nurses for Social Justice is a nonprofit organization focused on keeping impoverished people out of prison.

We travel cross-country giving free CLEs to public defenders and connect them with nurses in their area who are aware of their financial constraints.

Future projects include a nation-wide defender/nurse database, partnering with organizations to assist formerly incarcerated people navigate the health care system and training for nurses working in prisons and jails.

Nurses4SocialJustice.org



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Navigating Medical Records



Jennifer Grossman, BSN, RN, LNC

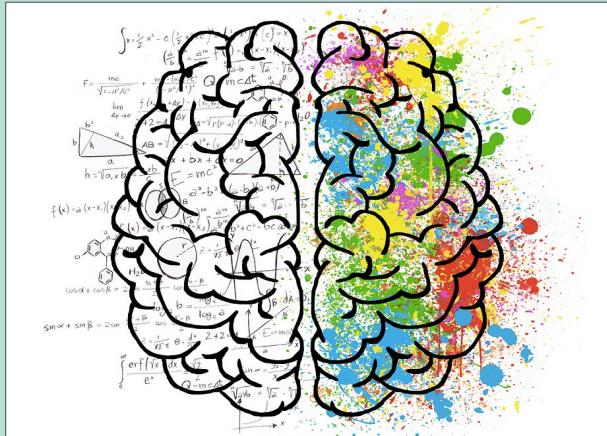
Nurses for Social Justice, Inc.

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A&Ox3

Alert & Oriented to Person, Place & Time

Used to quickly assess cognition



*recently situation (4) has been added

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GCS

Glasgow Coma Scale

Used to determine the patient's degree of impairment based on their response to stimuli

Score of 15 is best

Minimum is 3

Eye 1-4
Verbal 1-5
Motor 1-6

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GLASGOW COMA SCALE : Do it this way

Institute of Neurological Sciences NHS Greater Glasgow and Clyde

GCS at 40 | VERBAL MOTOR

CHECK

For factors interfering with communication, ability to respond and other injuries

OBSERVE

Eye opening, content of speech and movements of right and left sides

STIMULATE

Sound: spoken or shouted response
Physical: Pressure on finger tip, trapezius or supraorbital notch

RATE

Assign according to highest response observed

Criterion	Observed	Rating	Score
Open before stimulus	✓	Spontaneous	4
After spoken or shouted request	✓	To sound	3
After finger tip stimuli	✓	To pressure	2
No opening at any time, no interfering factor	✓	None	1
Closed by local factor	✓	Non testable	N/T

Criterion	Observed	Rating	Score
Comes/hr gives name, place and date	✓	Orientated	5
Not orientated but communication coherently	✓	Confused	4
Inappropriate single words	✓	Words	3
One or more / graws	✓	Sounds	2
No suitable response, no interfering factor	✓	None	1
Repetitive naming with communication	✓	Non testable	N/T

Criterion	Observed	Rating	Score
Other 2 part request	✓	Obeys commands	4
Brings hand above elbow to stimulus on head/neck	✓	Localizing	3
Bends arm at elbow rapidly but features not predominantly abnormal	✓	Normal flexion	4
Bends arm at elbow, features clearly predominantly abnormal	✓	Abnormal flexion	3
Extends arm at elbow	✓	Extension	2
No movement in arms / legs, no interfering factor	✓	None	1
Paralysed or other limiting factor	✓	Non testable	N/T

Sites For Physical Stimulation

Features of Flexion Responses
Modified with permission from Van Der Naalt 2004
Neel Higginson Consensed

For further information and video demonstration visit www.glasgowcomascale.org

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Was the brain functioning normally ?

- Dementia
- Alzheimer's
- UTI
- Polypharmacy
- Chemotherapy
- Brain tumor
- Hyperparathyroidism
- Drugs
- Low blood sugar
- Kidney/Liver failure

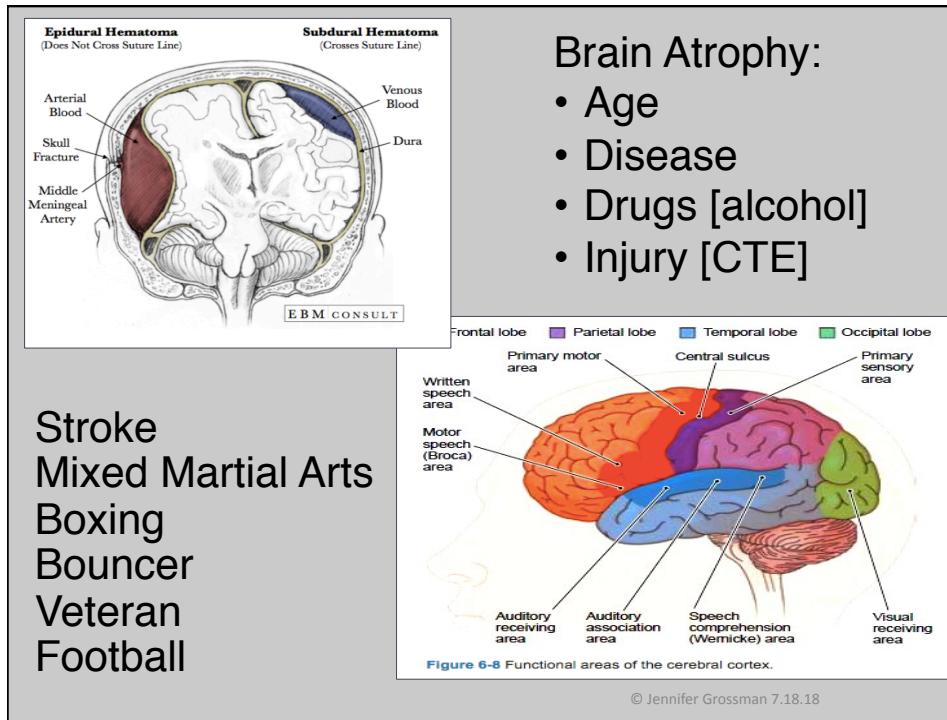
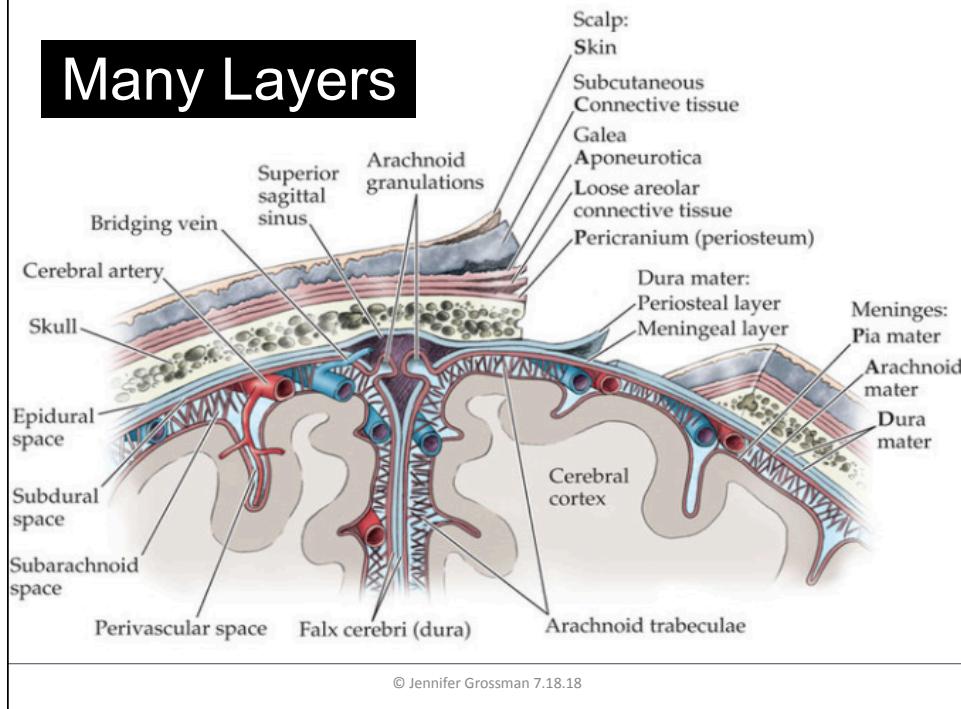
CTE: Chronic Traumatic Encephalopathy

A progressive degenerative disease due to repeated concussions and TBIs.

Causes erratic/impulsive behavior, impaired judgement, behavioral disturbances, aggression, depression, difficulty with balance and dementia.

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Many Layers



EMS Report

Discharge Note

Hospital Course



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Fire Department EMS Report

First **DOCUMENTED** medical professional to see the patient

- Standing, sitting, walking
- Conscious, confused, intoxicated
- Bleeding, broken, bruised

The **Glasgow Coma Scale** determines cognitive function

Chief Complaint – 1st person v EMS

Beware:

- **Multiple reports or no report**
- The report has to be included in the medical record
- Ask for the care report or run report

<http://www.emsprotocols.org/>

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EMS ID# [REDACTED]

Facility Address:	[REDACTED]		
Destination Type:	Nest Facility		
Dest. Reason:	[REDACTED]		
Registration #	[REDACTED]		
Loaded Mileage:	1.6 (Total Mileage: 1.6)		
Crew Members:	[REDACTED]		
Moved to Amb:	[REDACTED]		
Chair Transport Position:	Semi/Full Fowlers		
From Amb By:	[REDACTED]		
Other Units On Scene:	39V1		
Call Origin:	911		
Lights/Siren:	Scene / Destination		
Patient Information:			
Name:	[REDACTED]		
Address:	[REDACTED]		
Phone:	[REDACTED]		
Email:	[REDACTED]		
SSN:	[REDACTED]		
Driver License:	[REDACTED]		
Other Contact Info			
Name:	Phone:		
Relationship:	Cell Phone:		
Current Meds:	UNKNOWN		
Env Allergies:	NKA		
Med Allergies:	NKDA		
Patient Physician:	[REDACTED]		
Advanced Directives:	[REDACTED]		
PMH:	[REDACTED]		
Comment:	[REDACTED]		
Payer Information:			
Priority:	Primary	Name:	Self Pay
Policy Holder:	[REDACTED]	Type:	[REDACTED]
Relationship of Patient to Insured:	[REDACTED]	Policy #:	[REDACTED]
Phone: [REDACTED]			
 FIRE DEPARTMENT – CITY OF [REDACTED]			
Clinical:			
Onset Date/Time:	11/08/15		
Dispatch Reason (EMD):	STAB STAB - Stabbing		
Chief Complaint:	I got stabbed		
Provider Impression:	No Medic		
Mechanism of Injury:	Assault		
1 st Person Chief Complaint			
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EXAM

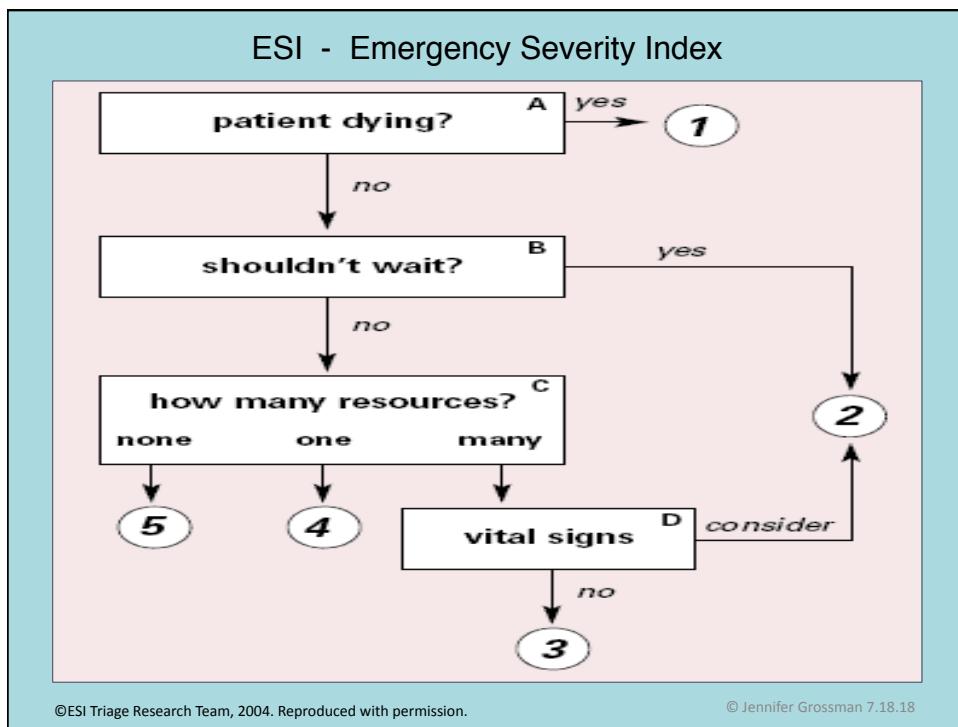
Protocol 1:			Protocol 2:		
Assessment:	Employee:	Type:	Summary:		
Time		ABC	Airway: Patent Breathing: Rapid Quality: Labored Lung Sounds: Left: Clear Lung Sounds: Right: Abdomen: Normal Skin Color: Normal Skin Temperature: Cool Skin Condition: Moist		
			Injury - Back		
			Location Modifier: Right Injury: Penetrating Injury Modifier:		
Head To Toe:			Head Neck: Normal Left Eye: Reactive Right Eye: Reactive Abdomen and Pelvis: LUQ Abdomen: Normal RUQ Abdomen: Normal LLQ Abdomen: Normal RLQ Abdomen: Normal		
Neurological:			AVPU: Alert		
Vitals:					
Time	Employee	Summary			
03:35:00		Glasgow Coma Score: E (4) + V (5) + M (6) = 15			
03:36:00	Yau, Eric	Pulse: 80 Resp: 28			
03:44:00	Yau, Eric	BP: 158/118 Pulse: 74 Resp: 28			
03:46:00		Glasgow Coma Score: E (4) + V (5) + M (6) = 15			
03:50:00	Yau, Eric	BP: 138/98 Pulse: 78 Resp: 28			
Treatments/Medications:					
Time	Employee	Summary			
03:35:00	Yau, Eric	Treatment- 1 - BLS Assessment Attempts: N/A Success: Yes Level: BLS			
03:40:00	Yau, Eric	Treatment- Med/Oxygen Administration Attempts: N/A Success: Yes Level: BLS Medication - Oxygen by Non-Rebreather Mask Dose:15 Unit: LPM Route: Inhalation Attempts: N/A Success: Yes Level: BLS			
03:41:00	Yau, Eric	Treatment- Wound Dressing Attempts: N/A Success: Yes Level: BLS			
Supply					
Qty Supply					
EKG Device Incident Number:			© Jennifer Grossman 7.18.18		
			2 of 3		PCR 1 of 1

GCS

TREATMENT

<u>FlexFields:</u>	
<u>FlexField</u>	<u>Value</u>
Payer 1 - Is the patient's illness or injury job-related?	No
03:35 Flow Chart: Medication 1 - BLS Assessment - Medication Complication	Not Known
03:40 Flow Chart: Medication Med/Oxygen Administration Oxygen by Non-Rebreather Mask - Medication Complication	Not Reporting
03:41 Flow Chart: Medication Wound Dressing - Medication Complication	Not Reporting
Narrative History Text:	
11 YEAR OLD MALE FOUND AOX3 WALKING AROUND IN THE STAIRCASE. PT COMPLAINS OF BEING STABBED IN THE BACK. LABORED BREATHING. PT IS GIVEN O2 VIA NRB 15 LPM. PE REVEALS A STABBED WOUND TO HIS UPPER RIGHT BACK. OCCLUSIVE DRESSING APPLIED. UNABLE TO GET BP FIRST ON SCENE. ALS ARRIVED ON SCENE AND TOOK OVER PT CARE +PNEUMOTHORAX. PT TRANSPORTED TO THE HOSPITAL WITH ALS ON BOARD WITHOUT INCIDENT. FOR MORE INFO SEE 39V1 EPCR.	
Unable to Sign: 2 nd EMS Incapable	
Authorized Representative: Authorized representative is available or willing	
Authorized Representative Signature: No	
Secondary Documentation: Unable to obtain secondary documentation	
Secondary Documentation Signature: No	
Comment: © Jennifer Grossman 7.18.18	

AOX3 → ← 2nd EMS ← ← ALS



Revised Trauma Score

Physiologic scoring system based on initial vital signs

The lower the score, the higher the severity of injury

12 = delayed, 11 = urgent, 3-10 = immediate, < 3 = declared dead

Glasgow Coma Scale		Systolic Blood Pressure		Respiratory Rate	
GCS	Points	SBP	Points	RR	Points
15–13	4	>89	4	10–29	4
12–9	3	76–89	3	>29	3
8–6	2	50–75	2	6–9	2
5–4	1	1–49	1	1–5	1
3	0	0	0	0	0

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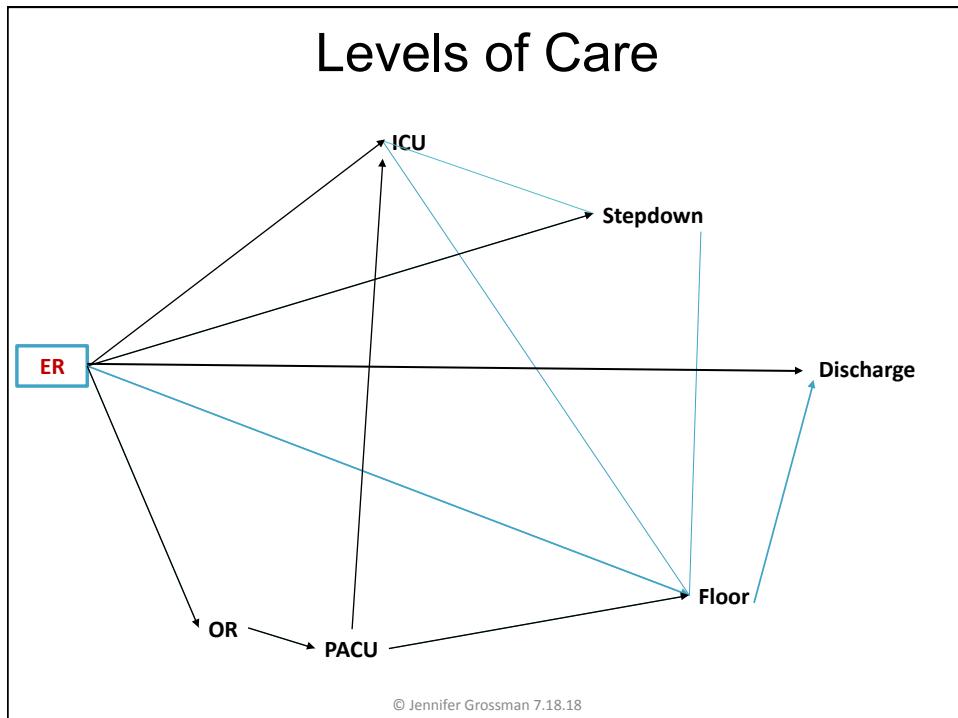
ER Examination & Treatment

- Head to Toe Examination [by systems]
- Urinalysis
- Blood work
- Toxicology [urine/blood]
- Radiology

FAST

- Focused Assessment with Sonography for Trauma. A bedside ultrasound to screen for blood around the heart or abdominal organs.
- Medications
- Repair of Injuries

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Staples, Stitches and Glue

Staples – Used to quickly close a long skin wound or in a hard to reach area. Easier to remove than stitches and if surgically placed the patient spends less time under anesthesia. Good for bony areas and fast repairs.

Stitches (sutures) – surgical thread, permeant or absorbable, for wounds that may take longer to heal, to close surgical incisions or repairing injuries. Some injuries require more than one layer of stitches due to depth.

Glue (tissue adhesive, liquid stitches) – for both major and minor wounds, sometimes used when a patient can't be still for stitches or wounds to the face. It is more expensive, some people are allergic to it and it cannot be used on those with a weak immune system.

Steri Strips – adhesive material like a tape used to pull together the edges of minor skin wounds or placed over an injury/incision that has been sutured or stapled as reinforcement. They fall off on their own.

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Discharge Note Hospital Course Note

- HPI – history of present illness
- Diagnoses
- Treatments
- Follow Up
- Discharge Exam

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Inpatient Record	Adm:11/23/2014, D/C:12/11/2014
Encounter Notes (continued)	
D/C Summaries by [REDACTED] NP at 12/02/14 1555 (continued)	Version 1 of 1
Service: Trauma	
Consults: Neurosurgery, Ophthalmology, Neurology	
Procedures: None	
Admission Diagnoses:	
Patient Active Problem List	
Diagnosis • Temporal bone fracture, closed, initial encounter • Traumatic subdural hematoma with loss of consciousness, initial encounter • Traumatic subarachnoid bleed with LOC of 30 minutes or less, initial encounter • Altered mental status • Acute alcoholic intoxication without complication • Compression of brain • Agitation • Cerebral contusion • Brain bleed	Date Noted 11/24/2014 11/24/2014 11/24/2014 11/24/2014 11/24/2014 11/24/2014 11/23/2014 11/23/2014
Discharge Diagnoses: As above	
HPI: 41yr old male with PMHx of DM, HTN (not compliant with any medications) presented as a Code Blue following an alleged assault. Upon arrival to IFH, he was not following commands. ATLS evaluation showed that he had an altered mental status and was agitated. GCS 13, blood noted in left ear, small lower inner lip laceration. Further examination was negative for major external injuries.	

Hospital Course:	
<p>The patient was found to have a closed temporal bone fracture, a traumatic left subdural hematoma, subarachnoid hematoma and cerebral contusions. Neurosurgery was consulted and patient was given a loading dose of dilantin but no neurosurgical intervention was required.</p> <p>Pt continued to be very confused, agitated and required a great deal of sedation during his first few days in the TICU. He was placed on a CIWA protocol after reports of alcohol abuse. He was also placed on an insulin drip as his blood sugars were very elevated.</p> <p>The insulin drip was eventually d/c and pt was placed on Metformin as well as an insulin sliding scale. He continued to be confused and somewhat impulsive and required constant reminders and redirection.</p> <p>Pt was transferred to NT 7 east on 11/29. Was transferred back to TICU on 12/1 s/p absence seizure x 2. EEG was obtained and was read by [REDACTED] from Neurology. Results stated Abnormal electroencephalogram compatible with encephalopathy that is moderately severe. No epileptiform discharges seen.</p> <p>Pt was transferred to the IMC on 12/3. Pt continued to be impulsive, complained of HA, dizziness and restless at times. HA controlled with prn fioricet. Continued on 3% Na gtt for hyponatremia. Continued on keppra. Started on Elavil for HA/dizziness per neurology. 3% NA gtt was eventually d/c'd and was kept on po salt tabs 2 g BID and increased to 3 g TID. Sodium levels ranged from 128-135. On 12/6 pt got up to the bathroom by himself and was eventually found after a thud was heard, on his knees and hands. A CT head and C-spine were ordered and both were found to be negative. Pt's seroquel and zyprexa were d/c'd because of increase hallucinations and agitation. Pt was placed with a 1:1 sitter because of this. Pt was eventually started on</p>	
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He has been seen by speech and PT/OT for cognitive evaluation. They stated he was appropriate for acute rehab and a shower chair. Cog eval recommended 2 x per week treatment inpatient and outpatient. Had met 2 goals up until 12/10. Continues to have short term memory and orientation problems. Pt had a PM& R evaluation by Dr. [REDACTED] and recommended acute rehabilitation when he is medically stable. Pt has impaired balance and is intermittently agitated and impulsive. Pt is not safe for discharge home due to these factors and will have cognitive and functional goals for inpatient rehabilitation.

Pt was also seen on 12/11 by Dr. [REDACTED] for continued complaints of diplopia. His recommends f/u as outpatient and may patch one eye. Pen light was normal. Visual acuity was OD 20/60 and OS 20/60.

At the time of discharge the patient was afebrile and his vital signs were within normal limits. He was ambulatory and able to void spontaneously without any difficulty. He was tolerating a diet and his pain was well controlled with oral medication.

Discharge Exam:

Constitutional: He is oriented to person, place, and time. He appears well-developed and well-nourished.

HENT:

Head: Normocephalic.

Eyes: Pupils are equal, round, and reactive to light. Left eye exhibits no hordeolum.

Complains of less photophobia bilaterally. Able to open eyes on command. No issues of diplopia. Dr. El Bashir present this am to examine his left eye.

Neck: Normal range of motion. Neck supple.

Cardiovascular: Normal rate, regular rhythm, normal heart sounds and intact distal pulses.

No murmur heard.

Pulmonary/Chest: Breath sounds normal. No respiratory distress. He has no wheezes.

Abdominal: Soft. Bowel sounds are normal. He exhibits no distension. There is no tenderness. There is no rebound.

Musculoskeletal: Normal range of motion.

Neurological: He is alert and oriented to person, place, and time. A sensory deficit (**per mother- patient complains of numbness to right two middle toes**) is present. GCS eye subscore is 3, GCS verbal subscore is 5, GCS motor subscore is 6.

Skin: Skin is warm and dry.

Psychiatric: His mood appears anxious (**at times, but has improved**). Cognition and memory are impaired. He expresses **impulsivity (at times)**. He exhibits abnormal recent memory.

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Blood Alcohol Content

Hospitals BAC is referred to as a Serum Ethyl Alcohol Level Test [ETOH]

- Results are given in mg/dL
- Normal result it < or = 10mg/dL

To determine a percentage from the BAC move the decimal 3 points to the left

- Ex: 80mg/dL = 0.08%

BAC test results and coinciding physical effects are different for each person depending on height, weight, normal use, amount ingested and metabolism.

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Blood Alcohol Concentration	Changes in Feelings and Personality	Physical and Mental Impairments
0.01 - 0.06	Relaxation Sense of Well-being Loss of Inhibition Lowered Alertness Joyous	Thought Judgment Coordination Concentration
0.06 - 0.10	Blunted Feelings Disinhibition Extroversion Impaired Sexual Pleasure	Reflexes Impaired Reasoning Depth Perception Distance Acuity Peripheral Vision Glare Recovery
0.11 - 0.20	Over-Expression Emotional Swings Angry or Sad Boisterous	Reaction Time Gross Motor Control Staggering Slurred Speech
0.21 - 0.29	Stupor Lose Understanding Impaired Sensations	Severe Motor Impairment Loss of Consciousness Memory Blackout
0.30 - 0.39	Severe Depression Unconsciousness Death Possible	Bladder Function Breathing Heart Rate
0.40 and greater	Unconsciousness Death	Breathing Heart Rate

*Chart adapted from Virginia Tech: www.alcohol.vt.edu

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Hints and Tips

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Wiki

The screenshot shows two side-by-side Wikipedia articles. The left article is titled "Some common medical abbreviations" and lists a table of abbreviations with their full names. The right article is titled "List of medical abbreviations" and includes a sidebar with navigation links and a message about the quality of references.

Some common medical abbreviations

EG abb	EG full name	Other (ver change, need to know...)
ABG	arterial blood gas	
ACE	angiotensin-converting enzyme	
ACTH	adrenocorticotropic hormone	
ADH	antidiuretic hormone	
AED	automated external defibrillator	
AIDS	acquired immunodeficiency syndrome	
ALP	alkaline phosphatase	
ALT	alanine aminotransferase	old version is SGPT
ASA	acetylsalicylic acid	aspirin
AST	aspartate aminotransferase	old version is SGOT
ATP	adenosine triphosphate	
BCG	bacille Calmette-Guérin	
bid	2 times a day	
BIBPD	brought in by police	
BLS	basic life support	
BMR	basal metabolic rate	
BP	blood pressure	

List of medical abbreviations

This article includes a list of references, related reading or external links, but its sources remain unclear because it lacks inline citations. Please help to improve this article by introducing more precise citations. (October 2015) (Learn how and when to remove this template message)

Y-H-E Medical abbreviations [edit]

Latin abbreviations - Prescription abbreviations - Acronyms in healthcare - Abbreviations for medical organizations and personnel - Abbreviations for diseases and disorders

Abbreviations are used very frequently in medicine. They boost efficiency as long as they are used intelligently. The advantages of brevity should be weighed against the possibilities of obfuscation (making the communication harder for others to understand and ambiguity (having more than one possible interpretation). Certain medical abbreviations are avoided to prevent mistakes, according to best practices (and in some cases regulatory requirements), these are flagged in the list of abbreviations used in medical prescriptions.

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Mayo Clinic

Specific Drug Groups

Use the following links to view information for specific drug categories:

<ul style="list-style-type: none"> ■ Alcohol ■ Amphetamine-Type Stimulants ■ Barbiturates ■ Benzodiazepines ■ Buprenorphine ■ Cocaine & Metabolite ■ Fentanyl 	<ul style="list-style-type: none"> ■ Ketamine ■ LSD ■ Marijuana (THC) ■ Methadone ■ Opiates ■ Phencyclidine (PCP)
--	---

Drug Abuse Survey

- This test is intended to be used by a physician or trained drug abuse counselor and interpreted in the context of the patient's symptoms and clinical and medication history.
- This is a screening immunoassay to identify drugs of abuse by class.
- Note:** This test is performed on urine specimens only.
- This test has a high negative predictive value.
- Cross-reactivity: this test has a false-positive rate of **Note:** The false-positive rate varies by analyte.
- Positive results are not definitive, and should be confirmed.
- This test is not intended to be used for employee drug testing.

The advantage of this test is low cost. The cross-reactivity can be problematic. For example, the test for amphetamines detects amphetamines and other stimulants, such as pseudoephedrine and over-the-counter (OTC) sympathomimetics, such as pseudoephedrine and phenylephrine concentrations.

Approximate Detection Times		
Marijuana/Cannabis (THC-COOH)	LOQ (ng/mL)	Detection Time* up to
Single Use	3	3 days
Moderate Use (4 times per week)		5 days
Heavy Use (daily)		10 days
Chronic Heavy Use		30 days

*These are approximate detection times for the drug or metabolites in urine. The actual detection time depends on dose, frequency of use, and individual metabolism.

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Order/Result

000015

MRN: [REDACTED] 71
DOB: [REDACTED] Sex: M
Adm:11/23/2014, D/C:12/11/2014

ED Provider Notes by Damilanian, Adele Charl [REDACTED] Procedure Component Value Units Date/Time				
11/23/14 0221 (continued) [REDACTED] of 1				
Ethanol (Alcohol) Level [223504357] (Abnormal) Specimen Information: Blood				
Alcohol	228 (H)	mg/dL	Collected:11/23/14 0222	Updated:11/23/14 0246
Basic Metabolic Panel (BMP) [223504359] (Abnormal) Specimen Information: Blood				
Glucose	471 (H)	mg/dL	Collected:11/23/14 0222	Updated:11/23/14 0246
BUN	13.0	mg/dL		
Creatinine	1.2	mg/dL		
CALCIUM	8.9	mg/dL		
Sodium	134 (L)	mEq/L		
Potassium	3.6	mEq/L		
Chloride	97 (L)	mEq/L		
CO ₂	18 (L)	mEq/L		
GFR [223504367]	EGFR	>60.0	Collected:11/23/14 0222	Updated:11/23/14 0246

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Findings & Impression

Radiology Results:

Radiology Results (24 Hour)

Procedure	Component	Value	Units	Date/Time
CT Abdomen Pelvis WO IV/ WO PO Contrast [223504372]				Collected:11/23/14 0253 Updated:11/23/14 0302
Order Status: Completed Narrative: Indication: Trauma.				
Procedure: Unenhanced CT of the abdomen and pelvis. Axial images were acquired using helical technique. No IV or oral contrast material.				
Findings: Sensitivity for some abnormalities is limited without IV contrast material. Specifically, sensitivity for solid organ injuries is limited. In addition, there are artifacts due to patient motion and scanning with the arms down. There is some stranding of the retroperitoneal fat adjacent to the tail of the pancreas and spleen. No splenic or hepatic laceration is visible without IV contrast material. The liver is slightly reduced in attenuation, consistent with fatty infiltration. Unremarkable adrenals. A tiny nonobstructive calculus is seen laterally in the upper pole of the left kidney measuring 2 mm in diameter. The kidneys have normal contour. No dilated bowel loops or bowel wall thickening. No free intraperitoneal gas or free fluid. Included portions of the lungs and mediastinum are unremarkable.				
Impression: Impression: 1. Sensitivity for some abnormalities is limited without IV contrast material. 2. There is some stranding of the retroperitoneal fat adjacent to the tail of the pancreas, possibly due to pancreatitis or possibly due to blunt trauma. A splenic laceration is not visible without IV contrast material. There is no free fluid. 3. Mild fatty infiltration of the liver.				

Generated on 1/5/2015 10:58 AM

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Nurses & Social Workers



- History of event
- Psychiatric History/Meds
- Domestic Violence
- Drug use
- ETOH
- Written: SxHx [social history]

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Length of Stay

Discharge is not the end of care

- SNF – skilled nursing facility
- Home Care - VNA
- Physical Therapy - PT

Shorter than expected admission

- Patient leaves against medical advice - AMA

Lengthy admissions

- Patient refuses/challenges discharge
- Extensive injuries
- Patient is homeless
- Threat of further injury
- Admission occurs on a weekend or holiday



vector illustration EPS 10

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The difference in mortality rates for patients admitted to the hospital during the weekend compared to those admitted on a weekday has been coined "The Weekend Effect" because staffing levels at hospitals are lower on nights, weekends and holidays and therefore only non-elective, urgent or emergent procedures are completed.

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Blood Under the Skin

Injury Age Autoimmune Disorders Infection Chemotherapy Birth Medications

HEMATOMA:

Damage to a blood vessel where blood collects and pools under the skin in a limited amount of space.

Can be close to the **surface** or **deep in the skin** with a three dimensional feel

Can also occur due to a disease process

Can be serious enough to need surgical drainage

Size: Petechia (<3mm), purpura (1cm) and ecchymosis (>1cm)

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Petechia



Purpura



Ecchymosis



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Open Wounds

The skin has been torn, cut or punctured
and the underlying structures are exposed to the outside world

- Incision - caused by a clean, sharp-edged object (surgical incision)
- Laceration - an irregular edged tear-like wound caused by blunt trauma
- Abrasion (graze) - superficial wound in which the topmost layer of the skin is scraped off
- Avulsion - the body structure is forcibly detached from its normal position of insertion; can be in reference to skin with the term degloving
- Puncture Wound – an object punctures the skin such as a splinter or nail
- Penetrating Wound – caused by objects such as knives entering and then coming out of the skin
- Gunshot Wound – caused by a bullet or other projectile driving into or through the body

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SURGICAL INCISION



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LACERATION



an irregular edged tear-like wound caused by blunt trauma

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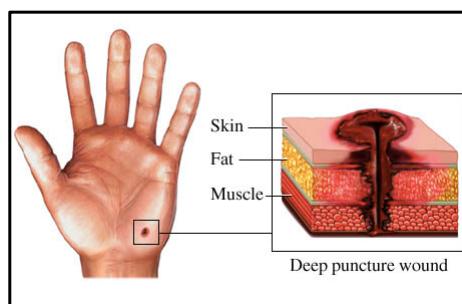
ABRASION



superficial wound in which the topmost layer of the skin is scraped off

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PUNCTURE WOUND



an object punctures the skin such as a splinter or nail

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PENETRATING WOUND



caused by objects such as knives entering and then coming out of the skin

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GUNSHOT WOUND



caused by a bullet or other projectile driving into or through the body

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Sexual Assault

Forms vary by jurisdiction and hospital

SANE – Sexual Assault Nurse Examiner

SAFE – Sexual Assault Forensic Examiner

Mandatory Reporter?

Immediate Medical Treatment

Exam: head to toe, pelvic [speculum], genital, anal, colposcopic

Evidence Collection: sexual assault kit, colposcope, toluidine blue, wood's lamp, photographs

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Forensic Evidence Kit

Made by different companies

Drug facilitated v. regular kit

Collection of evidence limited by staff knowledge and hospital resources

Particular evidence cannot be collected after 72 hours



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The Hymen

Thin, fleshy tissue located at the opening of the vagina

Most hymens naturally have a hole big enough for period blood to come out and tampons can be used comfortably

Some people are born with very little hymenal tissue – it may seem like they don't have a hymen at all

In rare cases, people have hymens that cover the entire vaginal opening, or the hole in their hymen is very small — they may need to see a doctor for a minor procedure to remove the extra tissue.

Just like other parts of our body, hymens are a little different for everyone.

The hymen can be stretched open the first time someone has vaginal sex - but this doesn't happen to everyone.

Other ways that a hymen can be stretched open: riding a bike, doing sports, or putting something in your vagina (like a tampon, finger, or sex toy).

Once your hymen is stretched open, it can't grow back.

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A National Protocol for Sexual Assault Medical Forensic Examinations Adults/Adolescents Second Edition

U.S. Department of Justice
Office on Violence Against Women

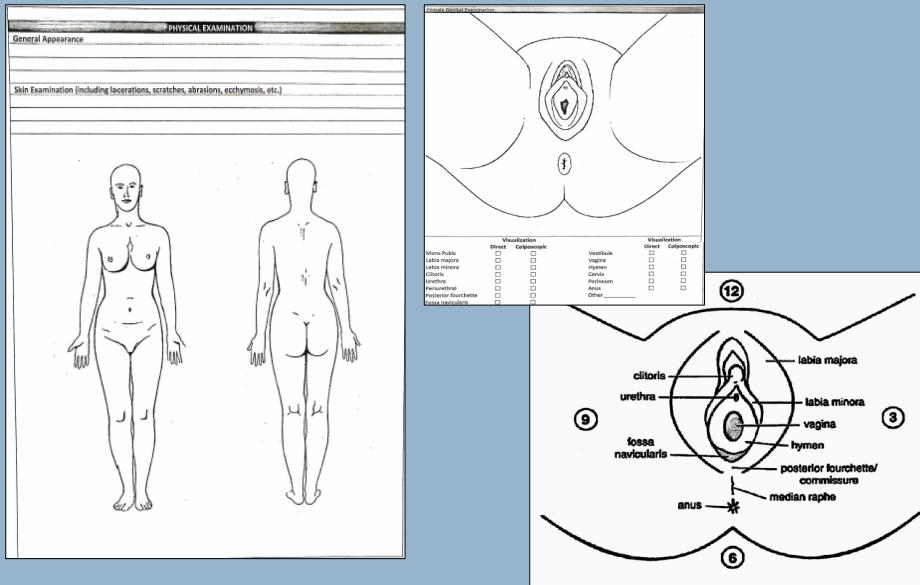
April 2013

NCJ 228119

MEDICAL HISTORY		EXAMINATION-TECHNIQUES	
Past Medical Problems: <input type="checkbox"/> None Reported	Allergies/Reaction: <input type="checkbox"/> Known Drug Allergies	Direct Visualization: <input type="checkbox"/> Yes	<input type="checkbox"/> No
Medications: <input type="checkbox"/> None Reported	Surgery: <input type="checkbox"/> None Reported	Speculum Exam: <input type="checkbox"/> Yes	<input type="checkbox"/> No
Last Tetanus Immunization:	Hospitalizations: <input type="checkbox"/> None Reported	Colposcopic Exam: <input type="checkbox"/> Yes	<input type="checkbox"/> No
Hepatitis B Immunization: <input type="checkbox"/> Yes <input type="checkbox"/> No	Developmental Disabilities: D/N/A	Alternate Light Source: <input type="checkbox"/> Yes	<input type="checkbox"/> No
LMP:			
Contraception:			
SEXUAL ASSAULT HISTORY			
Date of Reported Assault:	# "yes" describe (a), by mouth, by penis, by hand, by foreign object, etc.		
Breast Contact	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unsure	Evidence Kit Collected: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Evidence Collection:
Vaginal Contact	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unsure	Was Drug Facilitate SA kit utilized? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Anal Contact	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unsure	Was DSFA consent obtained? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Condom Use	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unsure	LOG OF ITEMS TAKEN FROM PATIENT FOR EVIDENCE	
Use of Foreign Object	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unsure	1. _____	5. _____
Alcohol/Lubricant	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unsure	2. _____	6. _____
Weapon	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unsure	3. _____	7. _____
Receptive Oral Contact	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unsure	4. _____	8. _____
Active Oral Contact	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unsure		
Anal/Facial/Facilitated Assault	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unsure		
Alcohol or Drug Use	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unsure		
Ejaculation/Occurred	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unsure		
Contraception	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unsure		
Reported Altered Mental Status:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unsure		
Other:			
Brief Narrative of Assault:			
DISCUSSED DIAGNOSTIC TESTS			
Pregnancy Test: Offered: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A Accepted: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A			
Hepatitis C Test: Offered: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A Accepted: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A			
Hepatitis B Test: Offered: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A Accepted: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A			
Syphilis Test: Offered: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A Accepted: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A			
HIV Test: Offered: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A Accepted: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A			

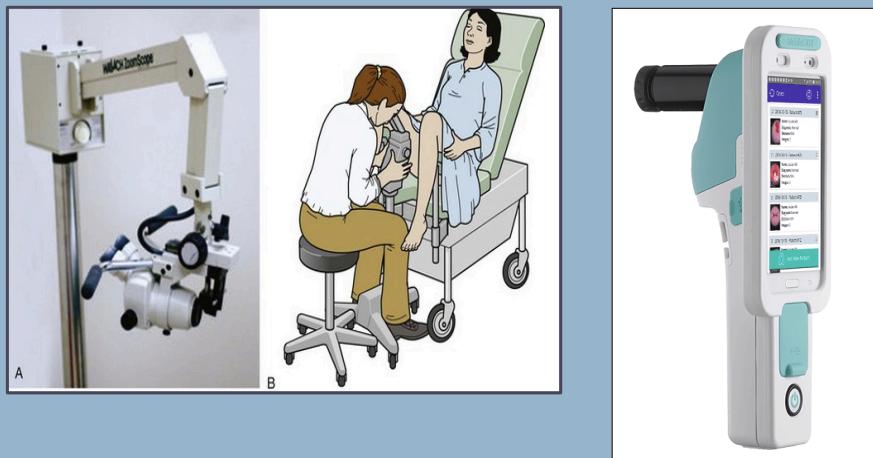
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Traumagrams



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Colposcopes



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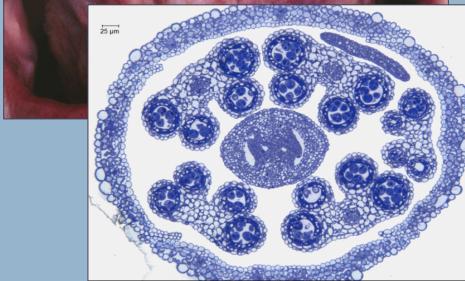
Toluidine Blue

A dye used to highlight areas of injury (microtraumas).

Dye is selectively taken up by injured tissues.

It must be used before any other exam due to the possibility of tissue injury when inserting a tools such as a speculum.

The dye can enhance the examiner's ability to visualize and document injuries in genital areas.



Wood's Lamp

An examination using UV light to detect semen by causing it to fluoresce

Detects many other molecules so should be used for location of evidence collection only

Format: Abstract ▾

Pediatrics. 1988 Dec; (104):142-4.

Wood's lamp utility in the identification of semen.

Sartucci KA¹, Nelson DG, McQuillen KK, Duffy SJ, Umiker JS

✉ Author information

Abstract

BACKGROUND: The accurate detection of semen is critical to forensic, medical, and legal personnel. The Wood's lamp (WL) emits ultraviolet light (UV), and has been identified as useful in rape evaluations because it is purported to cause semen to fluoresce. This study was intended to determine if semen can be distinguished from other products by WL analysis.

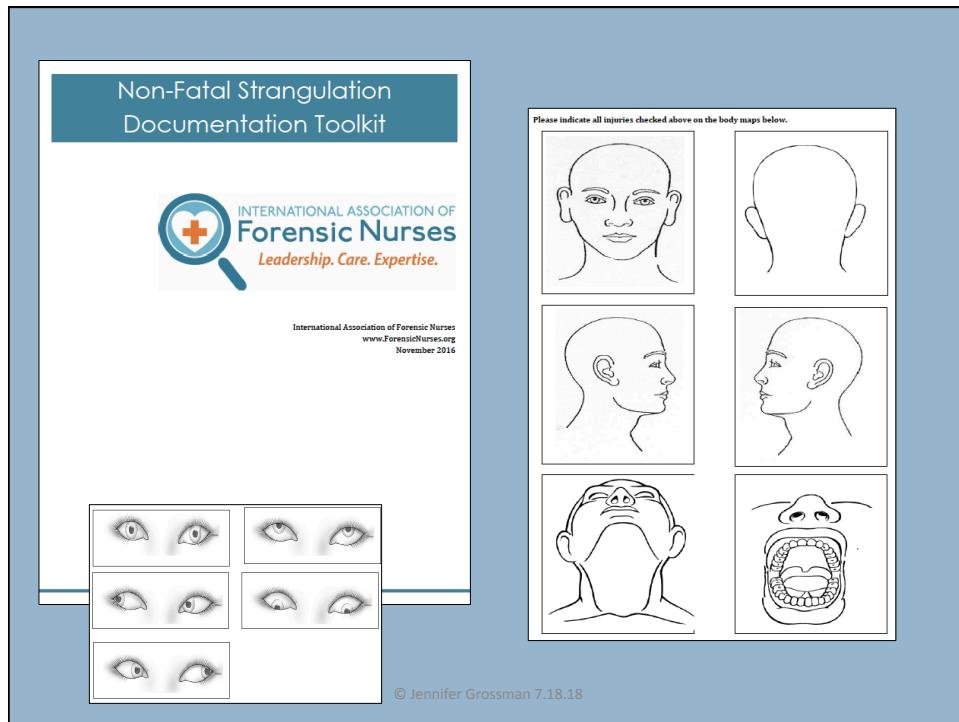
METHODS: Investigators reviewed the previous training and frequency of use of the WL by emergency medicine and pediatric emergency medicine physicians at 2 medical centers. The participants were asked to use a WL to distinguish between a semen sample (<8 hours old) and 13 commonly used products. Next, 29 semen samples were collected and evaluated under high-power microscopy and under UV.

RESULTS: A total of 41 physicians participated in the study (85% male). The number of years practicing in an emergency setting spanned from 3 to 23 years with a mean of 7.1 years. A total of 51% of participants train in emergency medicine, 23% in pediatrics and pediatric emergency medicine. A total of 22% reported formal training in the collection of forensic evidence. A total of 62% of the physicians believed they had learned to identify semen in the past, one third felt they could differentiate semen from other products under UV. None of the 41 physicians were able to differentiate semen from other products using a WL. Moreover, the semen samples used for this study did not fluoresce under WL analysis. None of the 29 semen samples fluoresced whether wet or dry. The medications most commonly mistaken for semen were ADAM ointment (Cardinal Health, Inc., Di-Cu, Irving, TX), and bacitracin (Dow).

CONCLUSIONS: Participating physician believed the WL has been purported to be a useful unreliable. Semen, previously reported complicated by the presence of previous

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Problems/Solutions

Trauma

- We have a better understanding of trauma; more brain science

Injuries

- Vaginal tissue is elastic and resilient
- Vaginal tissue is very sensitive
- Bruising cannot be dated

Terminology

- Examiners using terminology that is only known at their ER
 - ex: mounting injury

Studies

- Few and far between or very old

Lack of resources

- Hospitals that don't have a colposcope or good digital camera
- Nurses are not SANE certified

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Legal Nurse Consultant

A Legal Nurse Consultant [LNC] is a registered nurse who has been trained to guide attorneys through the medical aspects of their cases.



AN LNC can:

- Review medical records
- Create chronologies or timelines
- Research and help prepare for cross
- Interpret medical terminology
- Find policy/procedure and know hospital practices

American Association of Legal Nurse Consultants
A Professional Organization (must be a dues paying member to be listed)
<http://www.aalnc.org/page/search>
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Bio

Jennifer Grossman, BSN, RN, LNC

Jennifer graduated with a bachelor of science in nursing degree (BSN) from Hunter Bellevue School of Nursing. For the last 10 years she has worked as a neurology-neurosurgery Staff Nurse, outpatient Clinical Nurse Manager and Legal Nurse Consultant in New York City. She has experience reviewing medical records from all over the country, giving her vast knowledge of electronic medical records (EMR), medical terminology and chart organization.

She has spent the past 7 years working with public defenders nation-wide reviewing medical records, assisting with interpretation of medical records, cross prep and research.

Jennifer is a member of the American Association of Legal Nurse Consultants and the Medical Reserve Corps of New York and is dedicated to standing up for the exploited and powerless. She is the Founder and Executive Director of Nurses for Social Justice, a nonprofit that offers free CLE presentations on medical record review to public defenders across the country and encourages nurses to get involved in social justice issues, specifically criminal justice reform.

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Hyperlinks/Resources

Medical Abbreviations

- https://en.wikipedia.org/wiki/List_of_medical_abbreviations
- <http://www.medilexicon.com/>

All Things Medical

- <https://www.nih.gov/>

EMS Protocols

- <http://www.emsprotocols.org/>
- <http://www.staytonfire.org/Files/EMS%20Protocols.pdf>

National EMS Guidelines

- <https://www.nasemso.org/Projects/ModelEMSClinicalGuidelines/documents/National-Model-EMS-Clinical-Guidelines-23Oct2014.pdf>

Mayo Clinic Drug Guide

- <https://www.mayomedicallaboratories.com/test-info/drug-book/drug-groups.html>

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