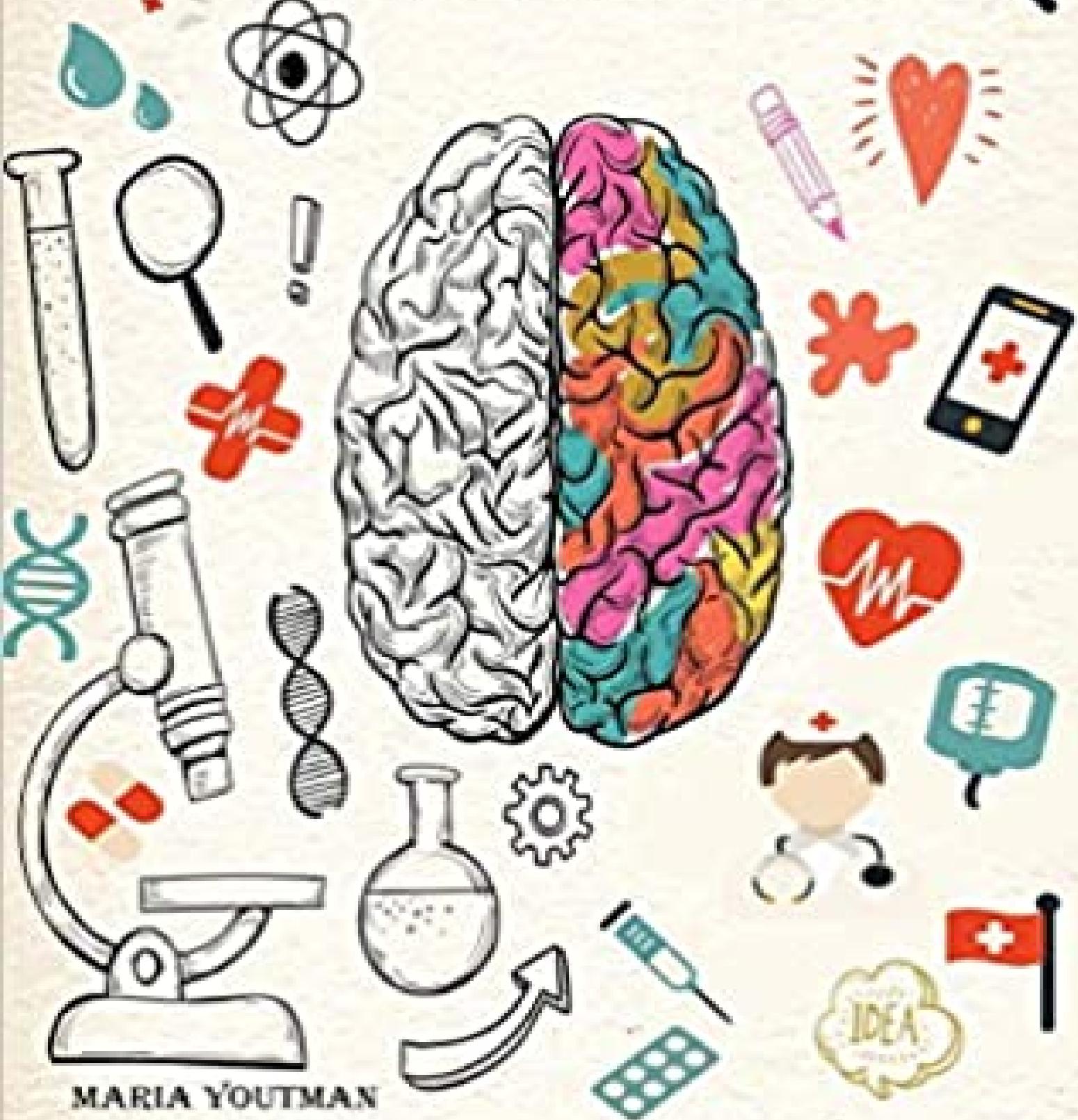


NURSING MNEMONICS

100 + MEMORY TRICKS TO CRUSH
THE NURSING SCHOOL

TRIGGER YOUR NURSING MEMORY



MARIA YOUTMAN

NURSING KNEMONICS

**100 + Memory Tricks to Crush the Nursing School
&
Trigger Your Nursing Memory**

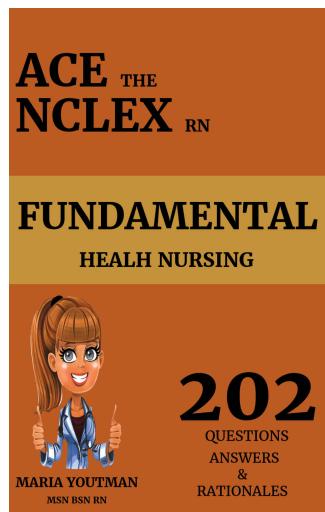
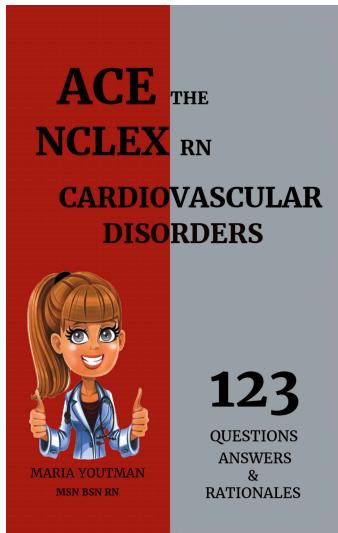
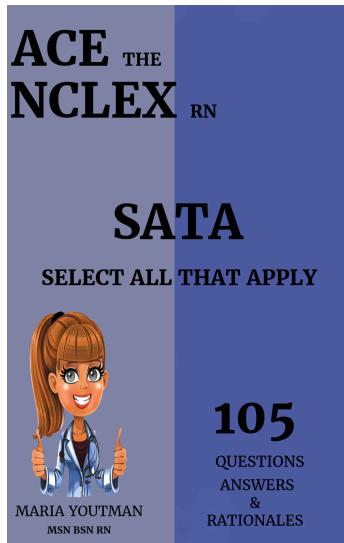
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MSN BSN RN**

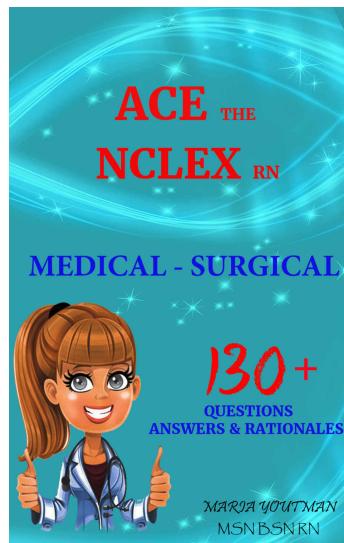
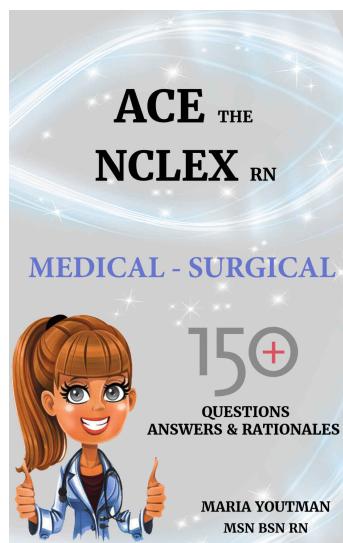
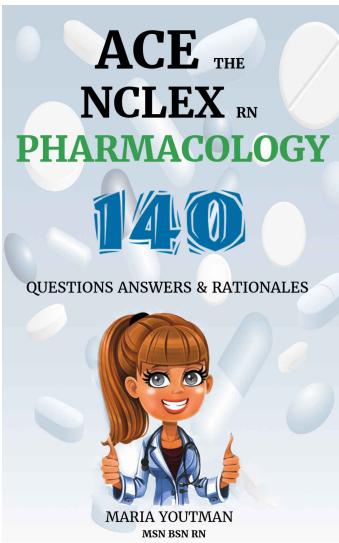
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ACE THE NCLEX RN

MATERNAL & CHILD HEALTH NURSING



MARIA YOUTMAN
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123
QUESTIONS
ANSWERS
&
RATIONALES

ACE THE NCLEX RN

PEDIATRIC HEALTH NURSING



MARIA YOUTMAN
MSN BSN RN

123
QUESTIONS
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&
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Contents

[ABOUT THE AUTHOR](#)

[INTRODUCTION](#)

[Nursing Health Assessment Mnemonics](#)

[Isolation / Precautions Mnemonics](#)

[Cardiovascular Nursing Mnemonics](#)

[Pharmacology Nursing Mnemonics & Tips](#)

[Maternal and Child Health Nursing Mnemonics & Tips](#)

[Anaesthesia Nursing Mnemonics](#)

[Behavioral science Psychiatric Nursing Mnemonics](#)

[Endocrine Nursing Knemonics](#)

[Anatomy Mnemonics](#)

[Miscellaneous](#)

[*One last thing*](#)

ABOUT THE AUTHOR

Maria Youtman MSN BSN RN

Words are very powerful. They can either inspire you to greatness or make you feel like crap. This is why it's best to choose the words you hear and the principles you believe. After all, we are all given a choice ever day: to wallow in self-pity or push ourselves to achieve great things despite our imperfections.

“Maria Youtman, MSN, BSN, RN, earned her bachelor of science degree from Penn University, and her Master of Science in Nursing from Johns Hopkins University. She has 10 years of nursing experience and 6 years of experience as a clinical nurse specialist. For the past Three years, she’s overseen nursing care in writing medical articles, books, and more.”

Maria had a three years of private clinical education and writing through various websites, she intended to move on one step to have a web community source, whatever she inspired, write, and edit, one place can gather all the efforts made.

Nurses are no exception. One's success in the nursing profession is not determined by how much theoretical knowledge a nurse possesses, but how resilient you are to apply everything you've learned—and that includes the principle of caring.

INTRODUCTION

There are a ton of terms that need to be read and memorized to help you at your nursing school, as well before you take the NCLEX-RN Exam.

It may get pretty hard to remember all of those concepts right off hand. One good way to help you to remember certain terms and concepts is to use Mnemonics.

Everyone has their own way of remembering information and that's why NCLEX-RN mnemonics are so helpful. Mnemonics is the study and development of systems for improving and assisting the memory.

Using mnemonics is an excellent way to keep things straight while also relating them to something less stressful.

Mnemonics improve your memory by using the technique of association.

At this Book, you get the most helpful mnemonics for the NCLEX-RN exam that you should include in your study sessions.

TERMINAL OBJECTIVES:

Mnemonics are popular study aids to help trigger your memory of a group of things. It is similar to memorizing a phone number. Instead of memorizing each individual number – you remember a group of 3 numerals (area code), 3 numbers and a group of 4 numbers. This is called “chunking”. When one thinks of a mnemonic, you usually think of a list of vertical letters that spell a word with words going off the stem horizontally.

For example: What you should quickly do with an acute myocardial infarction (MI/heart attack)?

M – morphine sulfate

O – oxygen

N – nitroglycerine

A – ASA (acetylsalicylic acid)

In this instance, remembering the word “ **MONA** ” = MI, can help you remember all the nursing actions one should anticipate.

Mnemonics are not always words however. They can really be any words, pictures, diagrams, lyrics/songs, a rhyme, or something that forms a relationship to help you remember.

Sometimes even the process of creating or thinking up a mnemonic can help you learn the underlying concept. My brain often likes to draw diagrams or models. Flowcharts or hierarchies can help me understand how things work together.

Personally, mnemonics to me have been helpful for some concepts but not all. I don’t really learn well with tons of mnemonics; I just have a couple for things that are really hard for me to remember.

Sometimes it seems like it is just as much work to learn the mnemonic as it would be just to memorize the information.

That is why the actual process of trying to think of a drawing, picture, diagram, or acronym can actually be more useful than just using someone else’s mnemonic.

Recognize The Following Example:

The American Cancer Society uses “ **CAUTION**” to describe cancer warning signs:

- C** – change in bowel or bladder habits
- A** – a sore that does not heal
- U** – unusual bleeding or discharge
- T** – thickening or lump
- I** – indigestion or difficulty swallowing
- O** – obvious change in size of a wart or mole
- N** – nagging cough or hoarseness

What are depressant drugs?

“Bats” Barbiturates, Alcohol, and Tranquilizers

You can draw a picture of a limp bat to help you remember this one...

- S**OAP Note
- S** – Subjective
- O** – Objective
- A** – Assessment
- P** – Plan

There are even now some diagnoses that are acronyms/mnemonics. An example is “HELLP Syndrome” which stands for **H** emolysis, **E** levated **L** iver enzymes and **L** ow **P** latelets or **HELLP**. HELLP syndrome is a life-threatening obstetric complication considered to be a complication of pre-eclampsia. The only treatment is delivery of the baby.

Mnemonics can even be how you take notes. Most people think of notes as an outline where you try to scribble as fast as the teacher talks. However, you can take notes a couple of different ways that can help you remember the information, rather than writing down all the words.

- If your teachers provide printed outlines: then draw pictures or diagrams of what they are talking about in the margin. This helps you use both sides of your brain and associate concepts.
- You can fold 1/3 of your page vertically and make a crease. On the left side of the crease you can write a question that you think of while they are talking. This is called the cue column. Literally make the concept into a test question. On the right side of the crease – right the answers or key ideas. At the bottom of the page, summarize the whole idea or concept in your own sentence. Later when you look back through your notes to study, you can fold the paper and “hide” the answers from yourself. It is a lot easier to keep track of then notecards.

This is called the Cornell System of notetaking. You can usually even find notepaper formatted this way to make it easy in office supply stores.

Nursing Health Assessment

Mnemonics

Level of Consciousness Assessment: “AVPU”

The AVPU scale is a system where you can measure and record a patient's responsiveness to indicate their level of consciousness. It is a simplification of the Glasgow Coma Scale, which assesses a patient response in three measures: eyes, voice, and motor skills. The AVPU scale should be assessed during these three identifiable traits, looking for the best response for each. It has four possible outcomes for recording and the nurse should always work from best (A) to worst (U) to avoid unnecessary tests on patients who are clearly conscious. On the other hand, it should not be used for long-term follow up of neurological status.

A	A lert
V	R esponse to Verbal Stimuli
P	R esponse to P ain
U	U nresponsive

Have you heard, "The patient is unconscious, breathing, and talking" and thought?"

The AVPU scale — a tool used to assess the patient's brain perfusion and function — describes a patient's level of consciousness.

A = the patient is **Awake**

V = the patient responds to a **Verbal** stimulus

P = the patient responds to a **Pain** stimulus

U = the patient is **Unresponsive** to stimulus

The distinction between 'A' and 'V' frequently causes confusion.

You are awake on AVPU scale

If you are reading this, you are 'A' on AVPU. You might be awake and confused, awake and disoriented, awake and lethargic, or awake and oriented.

Awake patients are always awake and some adjective that describes their mental status of being awake.

Not Awake is unconscious

A patient that is not awake is unconscious, V, P, or U.

A patient that is 'V' responds to a verbal stimulus provided by responders.

Have you ever yelled, "DUDE, wake up!" to an intoxicated patient (or friend) and they raised their eyes, looked at you, or somehow responded to your voice? They are responding to a verbal stimulus.

If the patient responds, "Why are you yelling at me?" the patient is 'A.'

A patient that is 'V' cannot be alert, answer history questions, or describe their chief complaint.

Interpreting a pain stimulus

If the patient doesn't respond to a verbal stimulus attempt a pain stimulus with a pinch, squeeze or sternum rub.

A sternum rub is the application of painful stimulus with the knuckles of closed fist to the center chest of a patient who is not alert and does not respond to verbal stimuli. The sternum rub is the most common painful stimulus practiced in the field by EMTs and paramedics. However, it is possible to misinterpret the patient's response to the stimuli depending on the duration the pressure is applied.

Health History Assessment: “SAMPLE”

In general, do not obtain a detailed history until life-threatening injuries have been identified and therapy has been initiated. The secondary survey is essentially a head-to-toe assessment of progress, vital signs, etc. SAMPLE is often useful as a mnemonic for remembering key elements of the patient’s health history.

S	S ymptoms
A	A llergy
M	Medications
P	P ast Medical History
L	L ast Oral Intake
E	E vents leading up to the illness or injury

S : Symptoms:
Patient chief complain.
Question to ask:
what’s wrong?
What brought you to the hospital?

- **A: Allergy : Seeking to know what type of allergic reaction they experience.**
Question to ask: Do you have allergy to anything?
What happens to you when you use something you are allergic to?

- **M : Medications: Prescribed OTS drugs, herbal meds.**
Question to ask: Are you taking any medication?
What are you taking the medication for?
When did you last take your medication?
- **P : Past Medical History: seeking to know the previous state of health, and previous illness.**
Question to ask: Have you had this problem before?
Do you have any other health problems?
- **L : Last Oral Intake: Seeking what are the last oral intakes of the patient.**
Question to ask: When did you last eat or drink anything?
What was it that last you intake?
- **E : Events leading up to the illness or injury.**
Question to ask: How did you get hurt?
What led to this problem?

Rapid Trauma Assessment: “DCAP-BTLS”

DCAP-BTLS is a mnemonic to remember specific soft tissue injuries to look for during assessment of a person after a traumatic injury.

D	Deformities
C	Contusions
A	Abrasions
P	Punctures or Penetrations
B	Burn
T	Tenderness
L	Lacerations
S	Swelling

D: Deformities

Malformations or distortions of the body.

C: Contusions

Injury to tissues with skin discoloration and without breakage of skin; also called a bruise.

A: Abrasions

Scrape caused by rubbing from a sharp object resulting in surface denuded of skin.

P: Punctures or Penetrations

Wound with relatively small opening compared with the depth; produced by a narrow pointed object.

B: Burns

Burns are injuries to tissues caused by heat, friction, electricity, radiation, or chemicals.

T: Tenderness

The condition of being tender or sore to the touch.

L: Lacerations

A torn or jagged wound caused by blunt trauma; incorrectly used when describing a cut.

S: Swelling

Sign of inflammation; caused by the exudation of fluid from the capillary vessels into the tissue.

Alcoholism Screening: “CAGE”

CAGE questionnaire is a widely used and an extensively validated method of screening for alcoholism. Two “yes” responses indicate that the possibility of alcoholism should be investigated further. By far the most important question in the CAGE questionnaire is the use of a drink as an Eye Opener, so much so that some clinicians use a “yes” to this question alone as a positive to the questionnaire; this is because the use of an alcoholic drink as an Eye Opener connotes dependence since the patient is going through possible withdrawal in the morning, hence the need for a drink as an Eye Opener.

C	CONCERN by the person that there is a problem
A	APPARENT to others that there is a problem
G	GRAVE consequences
E	EVIDENCE of dependence or tolerance •

C: Have you ever felt that you should **CUT** down on your drinking?

A: Have you ever become **ANNOYED**

by criticisms of your drinking?

- **G:** Have you ever felt **GUILTY** about your drinking?
- **E:** Have you ever had a morning **EYE OPENER** to get rid of a hangover?

Emergency Trauma Assessment: “ABCDEFGHI”

The ABCDEFGHI mnemonic is used for a quick assessment of trauma patients. This is especially useful for emergency cases. The purpose of primary assessment is to preserve the life of the victim, taking action where needed. Once the victim’s life-threatening conditions have been addressed, the rescuer must begin secondary assessment.

Primary Survey	
A	Airway
B	Breathing
C	Circulation
Secondary Survey	
D	Disability
E	Expose & Examine
F	Full set of vital signs
G	Give comfort measures
H	History and Head-To-Toe Assessment
I	Inspect Posterior Surface

A: Airway

Keep the airway open to allow the body to take in oxygen and expel carbon dioxide. Use the head-tilt chin-lift technique to open the airway. Check or and remove obstructions. A blocked airway can lead to respiratory or cardiac arrest.

B: Breathing

Once the airway is open, check for normal breathing, make use of the look, listen, and feel techniques.

Look at the chest and observe the rising and falling for normal respiration. Listen for air movement. Feel for air coming through the mouth or nose. If there is no breathing or abnormal breathing, CPR must be initiated with 2 breaths.

C: Circulation

Oxygen-rich blood cannot be circulated without breathing. Hence, it's unnecessary to check for pulse to determine whether CPR is needed; commence immediately if no breathing is detected.

D: Disability

Check the patient's neurological status and for obvious deformities or disabilities.

E: Expose & Examine

Remove clothing to properly assess patient; be sure to keep the patient warm.

F: Full set of vital signs

Note any changes in the following signs: pulse (carotid, brachial, radial), pupils, breathing, level of consciousness, blood pressure, and skin color and temperature.

G: Give comfort measures

Continue to rest and reassure. Provide comfort measures and prevent further injury.

H: History and Head-To-Toe Assessment

Use the mnemonic SAMPLE to obtain health history and do a head-to-toe assessment after.

I: Inspect Posterior Surface

Inspect for wounds, deformities, discolorations, etc.

Seven Warning Signs of Cancer

“CAUTION”

Early detection is the key in treatment of cancers. The CAUTION mnemonic is used by the American Cancer Society to detect and recognize the early warning signs of cancer. Though one of these signs does not necessarily mean someone has cancer.

C	Change in bowel or bladder habits
A	A sore throat that does not heal
U	Unusual bleeding or discharge
T	Thickening or lump in breast or elsewhere
I	Indigestion or dysphagia
O	Obvious change in wart or mole
N	Nagging cough or hoarseness

- **C: Change in bowel or bladder habits**
Common sign of colorectal cancer.
- **A: A sore throat that does not heal**
If located on the skin or in the mouth, skin cancer or mouth cancer could be the cause.
- **U: Unusual bleeding or discharge**
Any bleeding from the bladder, vagina or rectum could mean prostate, cervical or colorectal cancer.
- **T: Thickening or lump in breast or elsewhere.**
A lump on the breast can be sign of cancer, a lump on the testicle can be testicular cancer.

- **I: Indigestion or dysphagia.**
Can be symptoms of stomach, throat, esophagus or mouth cancer.
- **O: Obvious change in wart or mole.**
Most common sign of skin cancer.
- **N: Nagging cough or hoarseness**
A cough last for four weeks or longer can be symptoms of lung and/or throat cancer.

Family History Assessment

“BALD CHASM”

Family history plays a critical role in assessing the risk of inherited medical conditions, chronic illnesses and genetically transmitted diseases. Outline or diagram age and health, or age and cause of death of siblings, parents, and grandparents. Document presence or absence of specific illnesses in family. Use the mnemonic “BALD CHASM” to recall the diseases that needs to be investigated.

B	Blood pressure
A	Arthritis
L	Lung diseases
D	Diabetes
C	Cancers
H	Heart diseases
A	Alcoholism
S	Stroke
M	Mental health disorders

B: Blood pressure

African Americans have a higher risk for high blood pressure. Poor lifestyle choices and diet, that can be inherited by the family, can also pose as a risk.

A: Arthritis

Some types of arthritis run in families. Genes can be a contributing factor that can make someone susceptible to environmental factors that may trigger arthritis.

L: Lung diseases

Cystic fibrosis is a common inherited disease that affects mostly the lungs. It is manifested by accumulation of thick, sticky mucous, frequent infections and coughing.

D: Diabetes

History of type 2 diabetes in the family poses the patient at increased risk of developing it.

C: Cancers

Certain types of cancer, such as breast cancer and colon cancer, appear more frequently in some families.

H: Heart diseases

Genes can pass on the risk of cardiovascular disease, and they can also be responsible for passing on other conditions such as high blood pressure or high cholesterol levels.

A: Alcoholism

Certain genetic factors influence alcoholism. Research show that children of alcoholics are about four times more likely than the general population to develop alcohol problems.

S: Stroke

Risk for stroke is higher if someone in the patient's direct family line has had a stroke. Some strokes may be symptoms of genetic disorders like CADASIL.

M: Mental health disorders (depression, bipolar, schizophrenia etc.)

Some mental illnesses can run in families, although it may be from variety of factors rather than just genes.

Breast Assessment: “LMNOP”

Breast masses show marked variation in etiology, from fibro adenomas to cysts, to abscesses, mastitis, to breast cancer. All breast masses warrant careful evaluation, and definitive diagnostic measures should be pursued.

L	L ump
M	M ammary changes
N	N ipple changes
O	O ther symptoms
P	P atient risk factors

L: Lump

Inspect and palpate breast for lumps, masses.

M: Mammary changes

Inspect and palpate for dimpling, tenderness, abnormal contours.

N: Nipple changes

Inspect and palpate for nipple retraction, lesions, discharges.

O: Other symptoms

Check size, symmetry, appearance of skin, direction of pointing, rashes, and ulceration.

P: Patient risk factors

Interview patient for predisposing factors, obtain family history or use the Breast Cancer Risk Assessment Tool.

Eyes Abbreviation

Abbreviations for the eyes are often confusing. OU which stands for the latin term Oculus Uterque means both eyes; OD for Oculus Dexter referring to the right eye and OS for Oculus Sinister for the left eye. Remember the mnemonic above to make sense of these abbreviations.

- Y **OU** look with **BOTH** eyes.
- The **RIGHT** dose won't **OD** [overdose].
- The only one that is **LEFT** is **OS** .

Signs VS Symptoms

Signs are commonly distinguished from symptoms and both are something abnormal and relevant to a potential medical condition. A sign is objective and is discovered by the health-care professional during an examination whereas a symptom is subjective, observed and experienced by the patient, and cannot be measured directly.

- **s I gn:** something **I** can detect even if patient is unconscious.
- **s YM ptom** is something only **hYM** knows about.

Pain Assessment: “OPQRSTU”

Assessment of pain is a crucial part in the role of nurses, and as such utilizing a problem-solving process becomes part of the equation. Pain is an unpleasant sensory and emotional experience associated with actual or potential tissue damage or described in terms of damage. Pain is subjective thus a careful assessment and evaluation is needed.

O	Onset
P	Provoking or Palliating Factors
Q	Quality
R	Region & Radiation
S	Severity
T	Time & Treatment
U	Understanding & Impact
V	Values

O: Onset

When did it begin? How long does it last (duration)? How often does it occur (time)? What were you doing when the pain started?

P: Provoking or Palliating Factors

What brings it on? What makes it better? What makes it worse?

Q: Quality

What does it feel like? Can you describe it (throbbing, stabbing, dull, etc.)?

R: Region & Radiation

Does your pain radiate? Where does it spread? Point to where it hurts the most. Where does your pain go from there?

S: Severity

What is the intensity (pain scale of 1-10, visual scales) of the symptom? Right now? At worst? Are there any other symptoms that accompany the pain?

T: Time & Treatment

When did the symptoms first begin? What medications are you currently taking for this? How effective are these? Side effects?

U: Understanding & Impact

What do you believe is causing this? How is this affecting your ADLs, you and/or your family?

V: Values

What is your goal for this symptom? What is your comfort goal or acceptable level for this symptom? Do you have any other concerns?

Isolation / Precautions Mnemonics

Droplet Precautions

Diseases included with droplet precautions:

- Pharyngeal Diphtheria
- Epiglottitis, (caused by Haemophilus influenza type b)
- Flu (**contact and droplet**)
- Meningococcal Disease: Sepsis, Pneumonia, meningitis
- Mumps (infectious parotitis)
- Pneumonia
- Mycoplasma Pneumonia
- Parvovirus B19 (erythema infectiosum or 5th disease)
- Pneumonic Plague
- Adenovirus (**contact and droplet**)
- Streptococcal pharyngitis
- Whooping Cough (pertussis)
- Rhinovirus
- Scarlet fever
- Rubella (German Measles)

Who's Adjustable Droplet Mask Stops Scary Pneumatic Fluid Parasites Plaguing Distinguished German Men? My Epic Mum's, Rhonda.

Who 's: **Who** ping Cough

Ad justable: **Ad** enovirus (remember ADD contact precautions as well)

Droplet : type of precaution

Mask : PPE you must wear at all times

St ops: **St** reptococcal pharyngitis

Scar y: **Scar** let fever

Pneum atic: **Pneum** onia

Flu id: **Flu** (influenza)

Par asites: Parovirus B19

Plaguing: Pneumonic Plague

Distinguished: Diphteria

German : German Measles (Rubella)

Men : Meningococcal Disease: Meningitis, sEpsis, pNemonia

My : Mycoplasma Pneumonia

Epic: Epiglottitis

Mum's: Mumps

Rh onda: Rhinovirus

Airborne Precautions

Diseases included with airborne precautions:

- Chicken Pox (varicella) (**Airborne and Contact**)
- Herpes Zoster (Varicella Zoster(disseminated) Shingles (**Airborne and Contact**)
- Measles (Rubeola)
- M. Tuberculosis

Airborne Chicken Number 95 Dissected Her Tubby Mealworm

Airborne : type of isolation precaution

Chicken : Chicken Pox (Varicella)

N umber 95 : N95 mask...special PPE you must wear at all times

Diss ected Her : Diss eminated Her pes Zoster (Shingles)

Tub by: Tuberculosis

Mea lworm: Mea sles

Contact Precautions

Diseases included with contact precautions:

- Medication-Resistant Organisms: **MRSA, VRE**, extended spectrum beta lactamase producers (**ESBLs**), Klebsiella pneumoniae carbapenemase (**KPC**)
- Diarrhea infections or of unknown origin: **C.diff, noravirus, rotavirus**USE SOAP AND WATER FOR HAND WASHING NOT hand-sanitizer.
 - NOTE: Hepatitis A. (if patient is diapered or incontinent pt)..remember it is spread through stool
 -
- Skin infection: **impetigo, lice, scabies, herpes simplex, chickenpox (airborne and contact)** , skin diphtheria, shingles (**airborne and contact**)
- Wound infections with excessive drainage or staphylococci
- Pulmonary infections: **RSV, parainfluenza**
- Eye infection: **conjunctivitis**

Don Medical Glove/Gown With Every Contact Precaution Session

D on: **D**iarrhea Infections

Medical: **M**edication Resistant Organisms

Gloves/Gown : PPE you must always wear at all times

With: **W**ound Infections

Every: **E**ye infections

Contact : type of isolation precaution

Precaution: **P**ulmonary infections

Session: **S**kin infections

Cardiovascular Nursing Mnemonics

Aortic regurgitation: causes

CREAM

C	Congenital
R	R heumatic damage
E	E ndocarditis
A	A ortic dissection/ A ortic root dilatation
M	M arfan's

Aortic stenosis characteristics

SAD

S	Syncope
A	Angina
D	Dyspnea

Aortic to right Subclavian path

ABC'S

A	Aortic arch gives rise to:
B	B rachiocephalic trunk
C	Left C common C arötid
S	Left S ubclavian

Heart valves (right to left)

Toilet **P**aper **M**y **A**ss, **T**hey **P**ay **M**e **A**lcohol, or "T"hugs "P"ush "Me" "A"round.

T	T ricuspid valve
P	P ulmonary semilunar valve
M	M itral (bicuspid) valve
A	A ortic semilunar valve

Apex beat: abnormalities found on palpation, causes of impalpable

HILT :

H	Heaving
I	I mpalpable
L	L aterally displaced
T	T hrusting/ T apping

If it's impalpable, causes are COPD:

C	C OPD
O	O besity
P	P leural, P ericardial effusion
D	D extrocardia

Atrial Arrhythmias Treatment

ABCDE

A	A nticoagulants
B	B eta blockers
C	C alcium Channel Blockers
D	D igoxin
E	E lectro cardioversion

Anticoagulants : To prevent embolization.

Beta blockers : To block the effects of certain hormones on the heart to slow the heart rate.

Calcium Channel Blockers : Help slow the heart rate by blocking the number of electrical impulses that pass through the AV node into the lower heart chambers (ventricles).

Digoxin : Helps slow the heart rate by blocking the number of electrical impulses that pass through the AV node into the lower heart chambers (ventricles).

Electro cardioversion: A procedure in which electric currents are used to reset the heart's rhythm back to regular pattern.

Atrial Fibrillation causes

PIRATES

P	P ulmonary: PE, COPD
I	I atrogenic
R	R heumatic heart: mitral regurgitation
A	A therosclerotic: MI, CAD
T	T hyroid: hyperthyroid
E	E ndocarditis
S	S ick sinus syndrome

Atrial fibrillation management

ABCD

A	A nti-coagulate
B	B eta-block to control rate
C	C ardiovert
D	D igoxin

Beck's triad (cardiac tamponade)

3 D's

D	D istant heart sounds
D	D istended jugular veins
D	D ecreased arterial pressure

Betablockers: cardioselective betablockers

B etablockers **A** cting **E**xclusively **A**t **M** yocardium

B	B etaxolol
A	A cebutelol
E	E smolol
A	A tenolol
M	M etoprolol

CHF Treatment

LMNOP

L	L asix
M	M orphine
N	N itrites
O	O xygen
P	Vasso P ressors

CHF: causes of exacerbation

FAILURE

F	F orgot medication
A	A rrhythmia/ A naemia
I	I schemia/ Infarction/ Infection
L	L ifestyle: taken too much salt
U	U regulation of CO: pregnancy, U hyperthyroidism
R	R enal failure
E	E mbolism: pulmonary

Complications of Myocardial Infarction

Darth Vader

D	D eath
A	A rrythmia
R	R upture(free ventricular wall/ ventricular septum/ papillary muscles)
T	T amponade
H	H eart failure (acute or chronic)
V	V alve disease
A	A neurysm of Ventricles
D	D ressler's Syndrome
E	thrombo E mbolism (mural thrombus)
R	R ecurrence/ mitral R egurgitation

Coronary artery bypass graft: indications

DUST

D	D epressed ventricular function
U	U nstable angina
S	S tenosis of the left main stem
T	T riple vessel disease

ECG: left vs. right bundle block

W i LL ia M M a RR o W

W pattern in V1-V2 and **M** pattern in V3-V6 is **L**eft bundle block.

M pattern in V1-V2 and **W** in V3-V6 is **R**ight bundle block.

Exercise ramp ECG: contraindications

RAMP

R	R ecent MI
A	A ortic stenosis
M	M I in the last 7 days
P	P ulmonary hypertension

Endocarditis

FROM JANE

F	F ever
R	R oth's spots
O	O sler's nodes
M	M urmur of heart
J	J aneway lesions
A	A nemia
N	N ail hemorrhage
E	E mboli

Heart valve sequence

Try Pul ing My Aorta

T	T ricuspid
P	P ulmonary
M	M itral (bicuspid)
A	A orta

Heart blocks

If the **R** is far from **P** , then you have a **First Degree** .

Longer, longer, longer, drop! Then you have a **Wenkebach** .

if some **P'** s don't get through, then you have **Mobitz II** .

If **P'** s and **Q'** s don't agree, then you have a **Third Degree** .

Infarctions TREATMENT

INFARCTIONS

I	I V access
N	N arcotic analgesics (e.g. morphine, pethidine)
F	F acilities for defibrillation (DF)
A	A spirin/ Anticoagulant (heparin)
R	R est
C	C onverting enzyme inhibitor
T	T hrombolysis
I	I V beta blocker
O	O xygen 60%
N	N itrates
S	S tool Softeners

JVP: wave form

ASK ME

A	A trial contraction
S	S ystole (ventricular contraction)
K	K losure (closure) of tricusps, so atrial filling
M	M aximal atrial filling
E	E mptying of atrium

MI: basic management

BOOMAR

B	B ed rest
O	O xygen
O	O piate
M	M onitor
A	A nticoagulant
R	R educe clot size

MI: signs and symptoms

PULSE

P	P ersistent chest pains
U	U pset stomach
L	L ightheadedness
S	S hortness of breath
E	E xcessive sweating

MI: therapeutic treatment

O BATMAN

O	O xygen
B	B eta blocker
A	A SA
T	T rombolytics (e.g. heparin)
M	M orphine
A	A ce prn
N	N itroglycerin

MI: treatment of acute MI

COAG

C	C yclomorph
O	O xygen
A	A spirin
G	G lycerol trinitrate

Murmur attributes

"IL PQRST" (person has ill PQRST heart waves)

I	I ntensity
L	L occasion
P	P itch
Q	Q uality
R	R adiation
S	S hape
T	T iming

Murmurs: innocent murmur features

8 S's

S	S oft
S	S ystolic
S	S hort
S	S ounds (S1 & S2) normal
S	S ymptomless
S	S pecial tests normal (X-ray, EKG)
S	S tanding/ S itting (vary with position)
S	S ternal depression

Murmurs: louder with inspiration vs expiration

L **E** ft sided murmurs louder with **E**xpiration

R **I**ght sided murmurs louder with **I**nspiration.

Murmurs: questions to ask

SCRIPT

S	S ite
C	C haracter (e.g. harsh, soft, blowing)
R	R adiation
I	I ntensity
P	P itch
T	T iming

Murmurs: systolic vs. diastolic

PASS : P ulmonic & A ortic

S tenosis= S ystolic.

PAID : P ulmonic & A ortic

I nsufficiency= D iastolic.

Pericarditis: causes

CARDIAC RIND

C	C ollagen vascular disease
A	A ortic aneurysm
R	R adiation
D	D rugs (such as hydralazine)
I	I nfections
A	A cute renal failure
C	C ardiac infarction
R	R heumatic fever
I	I njury
N	N eoplasms
D	D ressler's syndrome

Pericarditis: EKG

P ericarditi **S**

P R depression in **p** recordial leads.

S T elevation.

Peripheral vascular insufficiency: inspection criteria

SICVD

S	S ymmetry of leg musculature
I	I ntegrity of skin
C	C olor of toenails
V	V aricose veins
D	D istribution of hair

Pulseless electrical activity: causes

PATCH MED

P	P ulmonary embolus
A	A cidosis
T	T ension pneumothorax
C	C ardiac tamponade
H	H ypokalemia/ H yperkalemia/ H ypoxia/ H ypothermia/ H ypovolemia
M	M yocardial infarction
E	E lectrolyte derangements
D	D rugs

ST elevation causes in ECG ELEVATION

E	E lectrolytes
L	L BBB
E	E arly repolarization
V	V entricular hypertrophy
A	A neurysm
T	T reatment (e.g. pericardiocentesis)
I	I njury (AMI, contusion)
O	O sborne waves (hypothermia)
N	N on-occlusive vasospasm

Supraventricular tachycardia: treatment

ABCDE

A	A denosine
B	B eta-blocker
C	C alcium channel antagonist
D	D igoxin
E	E xcitation (vagal stimulation)

Ventricular tachycardia: treatment

LAMB

L	L idocaine
A	A miodarone
M	M exiltene/ Magnesium
B	B eta-blocker

White Blood Cell Count

N ever **I** let **m** on

keys **e** at **b** ananas

N	N eutrophils
L	L ymphocytes
M	M onocytes
E	E osinophils
B	B asophils

Heart Blocks: “The Heart Block Poem”

Heart blocks are abnormal heart rhythm where the heart beats too slowly. In this condition, the electrical signals that tell that heart to contract are partially or totally blocked between the upper chambers (atria) and lower chambers (ventricles).

Right-Sided Heart Failure Manifestations: “AW HEAD”

A	Anorexia and nausea
Results from the venous engorgement and venous stasis within the abdominal organs	
W	Weight gain
Due to retention of fluid.	
H	Hepatomegaly
Results from the venous engorgement of the <u>liver</u> ; increased pressure may interfere with the liver's ability to function.	
E	Edema (Bipodal)
Edema usually affects the feet and ankles and worsens when the patient stands or sits for a long period.	
A	Ascites
Is the accumulation of fluid in the peritoneal cavity; increased pressure within the portal vessels forces fluid into the abdominal cavity.	
D	Distended neck vein
Increased venous pressure leads to distended neck veins.	

When the right ventricle fails in right-sided heart failure, congestion in the peripheral tissues and the viscera predominates. This occurs because the right side of the heart cannot eject blood and cannot accommodate all the blood that normally returns to it from the venous circulation. Right-sided heart failure primarily produces systemic signs and symptoms.

Left-Sided Heart Failure: “DO CHAP”

D	Dyspnea
May be precipitated by minimal to moderate activity; also occurs during rest	
O	Orthopnea
Dyspnea that develops in the recumbent position and is relieved with elevation of the head with pillows.	
C	Cough
Cough is initially dry and nonproductive. Large volume of frothy sputum, which is sometimes pink, may be produced, usually indicating severe pulmonary congestion.	
H	Hemoptysis
Pink or blood-tinged sputum may be produced.	
A	Adventitious breath sounds
May be heard in various areas of the lungs; as failure worsens, pulmonary congestion increases and crackles may be auscultated throughout the lung fields.	
P	Pulmonary congestion (crackles/rales)
Sustained high pressure in the <u>pulmonary veins</u> eventually forces some fluid from the blood into the surrounding microscopic air sacs (alveoli), which transfer oxygen to the bloodstream.	

Pulmonary congestion usually occurs in left-sided heart failure; when the left ventricle cannot effectively pump blood out of the ventricle into the aorta and to the systemic circulation. Blood volume and pressure in the left atrium increases which decreases blood flow from the pulmonary vessels. Pulmonary venous blood volume and pressure increase, forcing fluid from the pulmonary capillaries into the pulmonary tissues and alveoli, causing pulmonary interstitial edema and impaired gas exchange.

Management of Heart Failure: “DAD BOND CLASH”

Management of HF are to relieve patient symptoms, to improve functional status and quality of life, and to extend survival. Medical management depends on the type, severity, and cause of HF — it can include reducing the workload of the heart by reducing preload and afterload; elimination of contributing factors such as hypertension. Remember the mnemonic “DAD BOND CLASH” for the medical management of heart failure.

D	Digitalis
A	ACE Inhibitors
D	Dobutamine
B	Beta-blockers
O	Oxygen
N	Nitrates
D	Diuretics
C	Calcium Channel Blockers
L	Lifestyle Changes
A	Angiotensin II Receptor Blockers
S	Sodium restriction
H	Hydralazine

D: Digitalis

Increases the force of myocardial contraction and slows conduction through the atrioventricular node; improves contractility, increasing left ventricular output, and enhances diuresis.

A: ACE Inhibitors

Promotes vasodilation and diuresis by decreasing afterload and preload, ultimately decreasing the workload of the heart.

D: Dobutamine

IV medication administered to patients with significant left ventricular dysfunction and hypo perfusion; stimulates the beta-1-adrenergic receptors.

B: Beta-blockers

Reduces mortality and morbidity in HF by reducing the adverse effects from constant stimulation of the sympathetic nervous system.

O: Oxygen

Oxygen may be necessary as HF progresses; need is based on the degree of pulmonary congestion and resulting hypoxia.

N: Nitrates

Causes venous dilation, which reduces the amount of blood return to the heart and lowers preload.

D: Diuretics

To remove excess extracellular fluid by increasing the rate of urine produced in patients with fluid overload.

C: Calcium Channel Blockers

Causes vasodilation, reducing systemic vascular resistance.

L: Lifestyle Changes

Restriction of dietary sodium, avoidance of excess fluid intake, weight reduction, and regular exercise.

A: Angiotensin II Receptor Blockers

ARBs block the effects of angiotensin II at its receptor; have similar hemodynamic effects as of ACE inhibitors. Serves as alternative for patients who cannot tolerate ACE inhibitors.

S: Sodium restriction

A low-sodium diet (2 to 3 g/day) diet and avoidance of drinking excess amounts of fluid is recommended.

H: Hydralazine

Lowers systemic vascular resistance and left ventricular afterload.

Hypertension Complications “5 C’s of Hypertension Complications”

The excessive pressure on the artery walls caused by hypertension or high blood pressure can damage the blood vessels, as well as organs in the body. The higher the blood pressure and the longer it goes uncontrolled, the greater the damage. With time, hypertension increases the risk of heart disease, kidney disease, and stroke.

C	Coronary Artery Disease
C	Chronic Renal Failure
C	Congestive Heart Failure
C	Cardiac Arrest
C	Cerebrovascular Accident

C: Coronary Artery Disease

Can lead to narrowing of blood vessels making them more likely to block from blood clots or fat breaking off from the lining of the blood vessel wall; also weakens the walls.

C: Chronic Renal Failure

Constant high blood pressure can damage small blood vessels in the kidneys making it not to function properly.

C: Congestive Heart Failure

Pumping blood against the higher pressure in the vessels causes the heart muscles to thicken. Eventually, the heart muscles may have a hard time pumping enough blood to meet the physiologic needs of the body leading to heart failure.

C: Cardiac Arrest

High blood pressure can cause CAD, damaged arteries cannot deliver enough oxygen to other parts of the body eventually leading to heart attack.

C: Cerebrovascular Accident

Hypertension leads to atherosclerosis and hardening of the large arteries. This, in turn, can lead to blockage of small blood vessels in the brain. It can also weaken the blood vessels in the brain causing them to balloon and burst.

Immediate Treatment of a Myocardial Infarction Client “MONA TASS”

MONA is a mnemonic that stands for: Morphine, Oxygen, Nitrates, and Aspirin. These are the four primary interventions that are performed when treating a patient with Heart Attack/Myocardial Infarction (MI). However, MONA does not represent the order in which you should administer these treatments as a nurse. It is a mnemonic intended to help you remember the components of MI treatment, not the prioritization of them.

M	Morphine
O	Oxygen
N	Nitroglycerine
A	Aspirin
T	Oxygen
A	Nitrates
S	Diuretics
S	Calcium Channel Blockers

M: Morphine

Analgesic drugs such as morphine are used to reduce pain and anxiety, also has other beneficial effects as a vasodilator and decreases the workload of the heart by reducing preload and afterload.

O: Oxygen

To provide and improve oxygenation of ischemic myocardial tissue; enforced together with bedrest to help reduce myocardial oxygen consumption. Given via nasal cannula at 2 to 4 L/min.

N: Nitroglycerine

First-line of treatment for angina pectoris and acute MI; causes vasodilation and increases blood flow to the myocardium.

A: Aspirin

Aspirin prevents the formation of thromboxane A2 which causes platelets to aggregate and arteries to constrict. The earlier the patient receives ASA after symptom onset, the greater the potential benefit.

T: Thrombolytics

To dissolve the thrombus in a coronary artery, allowing blood to flow through again, minimizing the size of the infarction and preserving ventricular function; given in some patients with MI.

A: Anticoagulants

Given to prevent clots from becoming larger and block coronary arteries. They are usually given with other anticoagulants to help prevent or reduce heart muscle damage.

S: Stool Softeners

Given to avoid intense straining that may trigger arrhythmias or another cardiac arrest.

S: Sedatives

In order to limit the size of infarction and give rest to the patient. Valium or an equivalent is usually given.

Myocardial Infarction Management: “INFARCTIONS”

Goals of treatment during MI are to minimize myocardial damage, preserve myocardial function, and prevent complications. These goals can be achieved by reperfusion the area with the emergency use of thrombolytic medications or by PCI. Reducing myocardial oxygen demand, and increasing oxygen supply with medications, oxygen administration and bed rest can minimize myocardial damage.

I	IV access
N	Narcotic analgesics
F	Facilities for defibrillation (DF)
A	Aspirin
R	Rest
C	Converting enzyme inhibitor
T	Thrombolytic
I	IV beta blocker
O	Oxygen
N	Nitrates
S	Stool Softeners

I: IV access

Two IV lines are placed usually to ensure that access is available for administering emergency medications.

N: Narcotic analgesics

Morphine is the analgesic of choice for MI and is administered in IV boluses to reduce pain and anxiety; reduces preload and afterload and relaxes bronchioles to enhance oxygenation.

F: Facilities for defibrillation (DF)

Have the crash cart available and ready.

A: Aspirin

Inhibits platelet aggregation. Treatment should be initiated immediately and continued for years.

R: Rest

Bed rest promotes comfort and healing.

C: Converting enzyme inhibitor

ACE-inhibitors lowers the blood pressure and the kidneys excrete sodium and fluid.

T: Thromolytic

Administered via IV to dissolve the thrombus in a coronary artery, allowing blood reperfusion, minimizing the size of the infarction and preserving ventricular function.

I: IV beta blocker

Long-term therapy with beta-blockers decreases the future incidences of cardiac events.

O: Oxygen

Administer at a modest flow rate for 2 to 3 LPM.

N: Nitrates

To increase cardiac output and reduce myocardial workload; relieves pain by redistributing blood to ischemic areas of the myocardium.

S: Stool Softeners

To prevent straining during defecation, which causes vagal stimulation and may slow the heart rate.

Myocardial Infarction Nursing Management

“BEE CAB SCORE”

Nursing care for patients who suffered MI is directed towards detecting complications, preventing further myocardial damage, and promoting comfort, rest, and emotional well-being.

B	Bed rest
E	ECG Monitoring
E	Emotional support
C	Cluster/Organize Patient Care
A	Anti-embolism stockings
B	Bedside commode
S	Stool Softener
C	Cardiac Rehabilitation Program
O	Oxygen therapy
R	Range-of-motion Exercises
E	Educate and inform

B: Bed rest

Bed rest helps reduce myocardial oxygen consumption.

E: ECG Monitoring

Frequently monitor ECG to detect rate changes or arrhythmias; place rhythm strips in the patient's chart for evaluation.

E: Emotional support

Provide support and help reduce stress and anxiety; administer tranquilizers as needed.

C: Cluster/Organize Patient Care

To maximize periods of uninterrupted rest.

A: Anti-embolism stockings

Can help prevent veno-stasis and thrombophlebitis.

B: Bedside commode

Allow use of bedside commode and provide privacy as much as possible.

S: Stool Softener

To prevent straining during defecation causing vagal stimulation and slow heart rate.

C: Cardiac Rehabilitation Program

Includes education regarding heart disease, exercise, and emotional support for the patient and the family.

O: Oxygen therapy

Increases available oxygen; set at 2-3 LPM.

R: Range-of-motion Exercises

Provides physical activity for the patient; if immobilized, turn him often.

E: Educate and inform

Explain procedures and answer questions.

Cardiopulmonary Bypass Complications

“4 H’s of CPB”

Cardiopulmonary bypass (CPB) mechanically circulates and oxygenates blood for the body while bypassing the heart and lungs. CPB maintains perfusion to body organs and tissues and allows the surgeon to complete the anastomosis in a motionless, bloodless, surgical field. CPB is not benign and there are a number of associated problems; use is limited to several hours.

H	Hypothermia
H	Hemodilution
H	Heparinization
H	Head or “Pumohead”

H: Hypothermia

Because blood is cooled during CPB to slow the body's basal metabolic rate.

H: Hemodilution

Due to administration of isotonic crystalloid solution during the procedure.

H: Heparinization

Heparin is used to prevent clotting and thrombus formation in the bypass circuit when blood comes in contact with the surface of the tubing.

H: Head or “Pumphead”

AKA postperfusion syndrome, include defects associated with attention, concentration, short term memory, fine motor function, and speed of mental and motor responses.

The “3 D’s” Cardiac Tamponade (Beck’s Triad)

In cardiac tamponade, blood or fluid collects in the pericardium, the sac surrounding the heart. Pericardial fluid may accumulate slowly without causing any noticeable symptoms until a large amount accumulates. However, a rapidly developing effusion can stretch the pericardium to its maximum size and, because of increased pericardial pressure, reduce venous return to the heart and decrease CO. It often has three characteristic signs that the physician will recognize during a physical exam. These signs are commonly referred to as “Beck’s Triad” or The 3 D’s.

D	Distant or muffled heart sounds
D	Distended jugular veins
D	Decreased pulse pressure

For Endocarditis, you can remember FAME.

F	Fever
A	Anemia
M	Murmur
E	Endocarditis

To be able to remember the cause of heart Murmur, think of SPAMS.

S	Stenosis of a valve
P	Partial obstruction
A	Aneurysm
M	Mitral
S	Septal defect

Remember FAST for the signs of a stroke.

F	F ace
A	A rms
S	S peech
T	T ime

Bradycardia, causes: STAGeRD J

F	F ace
A	A rms
S	S peech
T	T ime

Sick sinus syndrome
Thyroid (ie, hypothyroidism)

Athletic heart Gastrointestinal mesenteric traction

Rest/sleep

Drugs (eg, beta-blockers, digitalis)

Jaundice

Pharmacology Nursing Mnemonics & Tips

Lidocaine Toxicity: “SAMS”

Lidocaine is a class IB antiarrhythmic used as a second-line agent and after myocardial infarction. The therapeutic drug range for lidocaine is 1.5-5.0 mcg/mL. While generally safe, lidocaine can be toxic if administered inappropriately, and in some cases may cause unintended reactions even when properly administered. Lidocaine toxicity is seen at levels greater than 5 mcg/mL. Remember the mnemonic SAMS for signs and symptoms of lidocaine toxicity.

S	Slurred speech
A	Altered central nervous system
M	Muscle twitching
S	Seizures

Medication Administration Checklist: “TRAMP”

Nurses are primarily involved in the administration of medication across various settings. They are primarily involved in both dispensing and preparation of medication. Research on medical administration errors (MAEs) shows an error rate of 60%, 34% mainly in the form of wrong time, wrong rate, or wrong dose. Before dispensing medication, ensure the correct TRAMP.

T	Time
R	Route
A	Amount
M	Medication
P	Patient

T: Time

Check the order for when it would be given and when was the last time it was given.

R: Route

Check the order if it's through oral, IV, SQ, IM, or etc.

A: Amount

Check the medication sheet and the doctor's order before medicating. Be aware of the difference of an adult and a pediatric dose.

M: Medication

Check and verify if it's the right name and form. Beware of look-alike and sound-alike medication names.

P: Patient

Ask the name of the client and check his/her ID band before giving the medication. Even if you know that patient's name, you still need to ask just to verify.

Serious Complications of Oral Birth Control Pills “SEA CASH”

Some women experience side effects with “the pill” such as irregular periods, nausea, headaches, or weight change. If she experiences the side effects with the acronym SEA CASH, calling the help of a medical provider or visiting an emergency room immediately is recommended as they may signify a serious condition.

S	Severe leg pain
E	Eye problems
A	Abdominal pain
C	Chest pain
A	Acne
S	Swelling of ankles and feet
H	Headaches which are severe

Emergency Drugs to “LEAN” on

In the hospital setting, emergencies typically occur in emergency departments (EDs) and intensive care units (ICUs). The goal of using these common emergency drugs is to prevent the patient from deteriorating to an arrest situation.

L	Lidocaine
E	Epinephrine
A	Atropine Sulfate
N	Narcan

L: Lidocaine

ACTION: Suppresses automaticity of ventricular cells, decreasing diastolic depolarization and increasing ventricular fibrillation threshold. Produces local anesthesia by reducing sodium permeability of sensory nerves, which blocks impulse generation and conduction. USES: Ventricular arrhythmias, topical/local anesthetic

E: Epinephrine

ACTION: Stimulates alpha- and beta-adrenergic receptors, causing relaxation of cardiac and bronchial smooth muscle and dilation of skeletal muscles. USES: Bronchodilation; anaphylaxis; hypersensitivity reaction; Acute asthma attack; Chronic simple glaucoma

A: Atropine Sulfate

ACTION: Inhibits acetylcholine at parasympathetic neuroeffector junction of smooth muscle and cardiac muscle, blocking sinoatrial (SA) and atrioventricular (AV) nodes to increase impulse conduction and raise heart rate. USES: Decreases respiratory secretions, treats sinus bradycardia, reverses effects of anticholinesterase medication

N: Narcan

ACTION: Naloxone is used to treat an opioid emergency such as an overdose or a possible overdose of a narcotic medicine. USES: Opioid-induced toxicity; opioid-induced respiratory depression; used in neonates to counteract or treat effects from narcotics given to mother during labor

Drugs for Bradycardia & Hypotension: “IDEA”

Beta blockers reduce circulating catecholamine levels, decreasing both the heart rate and blood pressure. Typically, atropine is the drug of choice for symptomatic bradycardia. Antiarrhythmic and digoxin may also be used.

I	Isoproterenol
D	Dopamine
E	Epinephrine
A	Atropine Sulfate

I: Isoproterenol

Acts on beta2-adrenergic receptors, causing relaxation of bronchial smooth muscle; acts on beta1-adrenergic receptors in heart, causing positive inotropic and chronotropic effects and increasing cardiac output. Also lowers peripheral vascular resistance in skeletal muscle and inhibits antigen-induced histamine release.

D: Dopamine

Causes norepinephrine release (mainly on dopaminergic receptors), leading to vasodilation of renal and mesenteric arteries. Also exerts inotropic effects on heart, which increases the heart rate, blood flow, myocardial contractility, and stroke volume.

E: Epinephrine

Stimulates alpha- and beta-adrenergic receptors, causing relaxation of cardiac and bronchial smooth muscle and dilation of skeletal muscles. Also decreases aqueous humor production, increases aqueous outflow, and dilates pupils by contracting dilator muscle.

A: Atropine Sulfate

Acts on beta2-adrenergic receptors, causing relaxation of bronchial smooth muscle; acts on beta1-adrenergic receptors in heart, causing positive inotropic and chronotropic effects and increasing cardiac output. Also lowers peripheral vascular resistance in skeletal muscle and inhibits antigen-induced histamine release.

Thiazides Indications: “CHIC”

Thiazides affect the level of the nephron, inhibiting the reabsorption of sodium by the tubules at the cortical diluting segment of the nephron. The thiazides are the most commonly used oral diuretics and are widely used in the therapy of hypertension and congestive heart failure, as well as the treatment of edema due to local, renal and hepatic causes. Remember CHIC to thiazides indications!

C	Congestive Heart Failure
H	Hypertension
I	Insipidus
C	Calcium calculi

Parkinson's Medications: "ALBM"

There are many medications available to treat the symptoms of Parkinson's, although none yet that actually reverse the effects of the disease. Most Parkinson's disease treatments aim to restore the proper balance of the neurotransmitters acetylcholine and dopamine by increasing dopamine levels. It is common for people with PD to take a variety of these medications. To familiarize yourself with the common drugs used for PD, remember the mnemonic: "Ali Loves Boxing Matches". The former champion boxer Muhammad Ali was diagnosed with Parkinson's in 1984 at the age of 42, and is one of the most high-profile people battling the condition.

L	Levodopa
A	Amantadine
M	MAO Inhibitors
B	Bromocriptine

L: Levodopa

Levodopa is the drug most often prescribed. The body metabolizes it to produce dopamine. Giving dopamine directly is ineffective, because the brain ‘s natural defense blocks it from being used by the body. To suppress nausea and other possible side effects, levodopa is used in conjunction with a related drug called carbidopa.

A: Amantadine

It improves muscle control and reduces stiffness in Parkinson’s disease; allows more normal movements of the body as the disease symptoms are reduced. Amantadine is also used to treat stiffness and shaking caused by certain medicines that are used to treat nervous, mental, and emotional conditions.

M: MAO Inhibitors

MAO-B inhibitors also block the action of an enzyme that breaks down dopamine. They may be taken alone early in Parkinson’s disease or with other drugs as the disease progresses. MAO Inhibitors are often used alone because combining them with other drugs can cause unwanted side effects.

B: Bromocriptine

It improves the ability to move and decrease shakiness (tremor), stiffness, slowed movement, and unsteadiness. It may also decrease the number of episodes of not being able to move (“on-off syndrome”).

Morphine Side Effects: “MORPHINE”

Morphine interacts with opioid receptor sites, primarily in limbic system, thalamus, and spinal cord. This interaction alters neurotransmitter release, altering perception of and tolerance for pain. If side-effects occur, opioid rotation may be used for managing opioid-induced adverse effects.

M	Myosis
O	Out of it (sedation)
R	Respiratory depression
P	Pneumonia (aspiration)
H	Hypotension
I	Infrequency (constipation, urinary retention)
N	Nausea
E	Emesis

Atrial Arrhythmias: “ABCDE”

Atrial fibrillation is the most common sustained atrial arrhythmia. A variety of medicines are available to restore normal heart rhythm. A beta-blocker, such as bisoprolol or atenolol, or a calcium channel blocker, such as verapamil or diltiazem, will be prescribed. Digoxin may be added to help control the heart rate further. In some cases, amiodarone may be tried, or simply remember the mnemonic ABCDE.

A	Anticoagulants
B	Beta blockers
C	Calcium Channel Blockers
D	Digoxin
E	Electro cardioversion

A: Anticoagulants

To prevent embolization.

B: Beta blockers

To block the effects of certain hormones on the heart to slow the heart rate.

C: Calcium Channel Blockers

Help slow the heart rate by blocking the number of electrical impulses that pass through the AV node into the lower heart chambers (ventricles).

D: Digoxin

Digoxin helps slow the heart rate by blocking the number of electrical impulses that pass through the AV node into the lower heart chambers (ventricles).

E: Electro cardioversion

A procedure in which electric currents are used to reset the heart's rhythm back to regular pattern.

Ventricular Arrhythmias: “SLAP”

Treatment for ventricular arrhythmias depends on the symptoms, and the type of heart disorder. Some people may not need treatment. If ventricular tachycardia becomes an emergency situation, it may require CPR and electrical defibrillation or cardioversion (electric shock). And to prevent the arrhythmia from recurring, anti-arrhythmic medications such as procainamide, amiodarone, lidocaine, or sotalol are given through a vein.

S	Anticoagulants
L	Beta blockers
A	Calcium Channel Blockers
P	Digoxin

S: Sotalol

Blocks stimulation of cardiac beta1-adrenergic and pulmonary, vascular, beta2-adrenergic receptor sites. This action reduces cardiac output and blood pressure, depresses sinus heart rate, and prolongs refractory period in atria and ventricles.

L: Lidocaine

Suppresses automaticity of ventricular cells, decreasing diastolic depolarization and increasing ventricular fibrillation threshold.

A: Amiodarone

Prolongs duration and refractory period of action potential. Slows electrical conduction, electrical impulse generation from sinoatrial node, and conduction through accessory pathways.

P: Procainamide

Decreases myocardial excitability by inhibiting conduction velocity. Also depresses myocardial contractility.

For the treatment of Myocardial Infarction, you can think of the name MONA.

M	Morphine
O	Oxygen
N	Nitroglycerine
A	Asa

The drugs that are used in the treatment of HIV can be memorized with ZZLSD.

Z	Zidovudine
Z	Zalcitabine
L	Lamivudine
S	Stavudine
D	Didanosine

Remember MADD DOG for the treatment of congestive heart failure.

M	Morphine
A	Aminophylline
D	Digoxin
D	Dopamine
D	Diuretics
O	Oxygen
G	Gasses (gasses is for monitoring the arterial blood gasses)

Maternal and Child Health Nursing

Mnemonics & Tips

Severe Pre-Eclampsia: ***HELLP Syndrome***

HELLP syndrome is a life-threatening pregnancy complication usually considered to be a variant of preeclampsia. Both conditions usually occur during the later stages of pregnancy, or sometimes after childbirth.

H	Hemolysis
E	Elevated
L	Liver enzymes
L	Low
P	Platelet Count

Postpartum Assessment: “BUBBLE-HE”

Nurses need to be aware of the normal physiologic and psychological changes that take place in women’s bodies and minds in order to provide comprehensive care during this period. The postpartum period covers the time period from birth until approximately six weeks after delivery. So it is important to remember the mnemonic BUBBLE-HE to denote the components of the postpartum maternal nursing assessment.

B	Breast
U	Uterus
B	Bowel
B	Bladder
L	Lochia
E	Episiotmy
H	Homan’s sign
E	Emotional Status

Fetal Non-Stress Test: “NNN”

A nonstress test is a common prenatal test used to check on a baby’s health. Results of a nonstress test are considered reactive or nonreactive. Results are considered normal (reactive) if the baby’s heartbeat accelerates to a certain level twice or more. If the baby’s heartbeat doesn’t meet the criteria described, the results are considered nonreactive.

N	Non-Reactive
N	Non-Stress Test Is
N	Not Good

The APGAR score is used to gauge the health of a baby at 1 minute and 5 minutes after being born.

A	Appearance: Is the baby blue/pale, blue/pink, or pink?
P	Pulse: Is the pulse absent, under 100, or greater than 100?
G	Grimace: Response to stimulation
A	Activity: Flexing of the limbs
R	Respiration: Is there crying and is it weak or strong?

Fetal Wellbeing Assessment Tests: “ALONE”

Assessment of fetal well-being is crucial not only for high risk patients but also for other pregnant women who might develop unexpected complications in the course of otherwise normal pregnancies. The primary goal of antenatal evaluation is to identify fetuses at risk for intrauterine injury and death so that intervention and timely delivery can prevent progression to stillbirth.

A	Amniocentesis
L	L/S Ratio
O	Oxytocin Test
N	nonstress test
E	Estriol Level

Amniocentesis is a prenatal test where a small amount of amniotic fluid is removed from the sac surrounding the fetus for testing. Different tests can be performed on a sample, but it is used mainly to look for certain types of birth defects, such as Down syndrome, a chromosomal abnormality.

The lecithin–sphingomyelin ratio (aka L-S or L/S ratio) is a test of fetal amniotic fluid to assess for fetal lung immaturity.

Oxytocin Test or Challenge (a.k.a. Contraction Test) involves the intravenous administration of exogenous oxytocin to the pregnant woman. The target is to achieve around three contractions every ten minutes.

A nonstress test is used to evaluate a fetus' health before birth and provides useful information how the fetus' oxygen supply by checking its heart rate and how it responds to the fetus' movement.

Levels of estriol in the blood is used in maternal serum triple or quadruple screening test that is done between 15 and 20 weeks. The levels of the substances measured helps estimate the chance that the baby may have certain problems or birth defects.

Episiotomy Healing Evaluation: “REEDDA”

If the mother had an episiotomy or vaginal tear during delivery, the wound might hurt for a few weeks. Extensive tears might take longer to heal. The patient will have a vaginal discharge (lochia) for a number of weeks after delivery. Expect a bright red, heavy flow of blood for the first few days. The discharge will gradually taper off, becoming watery and changing from pink or brown to yellow or white. So it is always important to check for REEDA.

R	REDNESS
E	EDEMA
E	ECCHYMOSIS
D	DISCHARGES
D	DRAINAGE
A	APPROXIMATION

Fetal Accelerations and Decelerations: “VEAL CHOP”

Variable decelerations are associated with cord compression (V and C). Early decelerations are associated with head compression. This is generally a benign event (E and H). Accelerations are associated with oxygenation, which explains why they’re generally a good prognostic factor (A and O). Late decelerations* are associated with placental insufficiency (L and P). The trick to this mnemonic is writing it so each letter is associated with the one beneath it, or the other way around.

Variable Deceleration	V	C	Cord Compression
Early Deceleration	E	H	Head Compression
Acceleration	A	O	OKAY
Late Deceleration	L	P	Placental Insufficiency

Chorionic Villi Sampling & Alpha-fetoprotein

“Chorionic” has 9 letters and CVS is performed at 9 weeks’ gestation.

“Alpha Fetoprotein” has 16 letters and is measured at 16 weeks’ gestation.

Chorionic villus sampling and Alpha-fetoprotein	
9 & 16	
Chorionic	has 9 letters and CVS is performed at 9 weeks gestation
Alpha-fetoprotein	” has 16 letters and is measured at 16 weeks gestation.

Chorionic villus sampling (CVS) is a first-trimester (10 to 12 weeks) alternative to amniocentesis for prenatal diagnosis of genetic abnormalities. This procedure is accomplished by needle aspiration of a sample of chorionic villi, either by the trans cervical or transabdominal route.

Alpha-fetoprotein is a fetal protein produced in the yolk sac during the first 6 weeks of gestation and later by the fetal liver. AFP is found in the amniotic fluid and maternal serum. If the fetus has neural tube defect, AFP levels are elevated.

Prenatal Care Assessment: “ABCDEF”

The first prenatal visit is a time to establish rapport and baseline data relevant to the patient’s health. This begins with obtaining a health history, including screening for any presence of teratogens and concerns the woman may be experiencing. If you are lost with your assessment, remember the nursing mnemonic “ABCDEF” for the possible areas you can ask.

A	Amniotic fluid leakage
B	Bleeding vaginally
C	Contractions
D	Dysuria
E	Edema
F	Fetal movement (quickenning)

A: Amniotic fluid leakage

Check whether amniotic fluid is clear, blood-tinged (pink), green, or brown. A woman can tell the difference between urine and amniotic fluid because the fluid keeps leaking and she can't control its release.

B: Bleeding vaginally

Bleeding during pregnancy can happen any time from conception to the end of pregnancy. Any bleeding or spotting can be a sign of pregnancy where the fertilized egg develops outside the uterus (ectopic). An untreated ectopic pregnancy can be life-threatening for the woman.

C: Contractions

A pregnant mother may experience them from as early as six weeks into pregnancy to the very end, or not at all. These contractions typically feel like a tightening or hardening across the abdomen and should be irregular and totally painless.

D: Dysuria

Pregnant women are also more susceptible to urinary tract infections. Be careful not to confuse increased frequency of urination with a bladder infection (cystitis). If a pregnant woman notices that she is urinating more frequently, that urination is painful (dysuria), or that she has a fever, she may have an infection.

E: Edema

Edema is when excess fluid collects in the tissue. It's normal to have a certain amount of swelling during pregnancy because of water retention. Edema is most likely to trouble during the third trimester. It may be particularly severe for women with excessive amniotic fluid or those carrying multiples.

F: Fetal movement (quickening)

This can usually be felt between 16 and 23 weeks; movements are intermittent and infrequent.

Abdominal Pain Causes During Pregnancy: “LARA CROFT”

Intermittent abdominal discomfort or pain is a common pregnancy complaint. While itself may present to be harmless, it can also be a sign of a serious problem. There can be many causes for abdominal pain especially during pregnancy, remember the nursing mnemonic “LARA CROFT” to remind you.

L	Labor
A	Abruptio Placenta
R	Rupture (e.g., ectopic/uterine rupture)
A	Abortion (Spontaneous)
C	Cholestasis
R	Rectus sheath hematoma (RSH)
O	Ovarian tumor
F	Fibroids
T	Torsion of the uterus

L: Labor

Labor contractions usually cause discomfort or a dull ache in a pregnant woman's back and lower abdomen, along with pressure in the pelvis.

A: Abruptio Placenta

The premature separation of placenta from the uterus and typically presents with bleeding, uterine contractions, and fetal distress. Puts mother and fetus in serious danger if left untreated.

R: Rupture (e.g., ectopic/uterine rupture)

Ruptured ectopic pregnancy often results in internal bleeding and intense abdominal pain.

Rupture of the uterus results in bleeding, rupture of the amniotic sac; it is a serious emergency.

A: Abortion (Spontaneous)

Spontaneous abortion (a.k.a. miscarriage) is the unintentional expulsion of an embryo or fetus before the 24th week of gestation; manifests with abdominal cramps and vaginal bleeding.

C: Cholestasis

Cholestasis is the impairment of bile flow from the liver that can trigger intense itching and abdominal pain. It poses no risk for the mother but can be dangerous for the developing baby.

R: Rectus sheath hematoma (RSH)

It is a rare hematoma within the rectus sheath that produces a painful, tender swelling that can mimic an intraperitoneal mass with features of an acute abdomen.

O: Ovarian tumor

Ovarian cysts typically occur in the second trimester and typically do not pose risks to the mother or fetus; can naturally resolve themselves before or soon after childbirth.

F: Fibroids

Fibroids are benign tumors that originate in the uterus and are composed of the same smooth muscle fibers as the myometrium; usually poses no problems during pregnancy.

T: Torsion of the uterus

It is the rotation of more than 45 degrees around the long axis of the uterus; manifests with severe abdominal pain, tense uterus, and fetal distress. It may be due to structural abnormalities in the pelvis.

Preeclampsia Classic Triad: “PRE” eclampsia

Preeclampsia is a complication characterized by high blood pressure and signs of damage to another organ system (usually the kidneys). The condition usually begins after 20 weeks of pregnancy in a woman whose blood pressure had been normal. Even a slight rise in blood pressure may be a sign of preeclampsia.

P	Proteinuria
R	Rising blood pressure
E	Edema

P: Proteinuria

Proteinuria is defined as $> 300 \text{ mg}/24 \text{ h}$. Alternatively, proteinuria is diagnosed based on a protein: creatinine ratio ≥ 0.3 or a dipstick reading of 1+. Absence of proteinuria on less accurate tests (eg, urine dipstick testing, routine urinalysis) does not rule out preeclampsia.

R: Rising blood pressure

High blood pressure may develop slowly, but more commonly it has a sudden onset. Blood pressure that is 140/90 millimeters of mercury (mm Hg) or greater — documented on two occasions, at least four hours apart — is abnormal.

E: Edema

Sudden weight gains and swelling (particularly in the face and hands) often manifests; pitting edema—an unusual swelling, particularly of the hands, feet, or face, notable by leaving an indentation when pressed on.

Anaesthesia Nursing Mnemonics

Anesthesia machine/room check

MS MAID

M	Monitors (EKG, SpO2, EtCO2, etc.)
S	Suction
M	Machine check (according to ASA guidelines)
A	Airway equipment (ETT, laryngoscope, oral/nasal airway)
I	IV equipment
D	Drugs (emergency, inductions, NMBs, etc.)

Endotracheal intubation: diagnosis of poor bilateral breath sounds after intubation

DOPE

D	Displaced (usually right mainstem, pyriform fossa, etc.)
O	O bstruction (kinked or bitten tube, mucous plug, etc.)
P	P neumothorax (collapsed lung)
E	E sophagus

General anesthesia: equipment checks prior to inducing

MALES

M	Masks
A	A irways
L	L aryngoscopes
E	E ndotracheal tubes
S	S unction/ S tylette, bougie

Spinal anesthesia agents

" **L** ittle **B** oys **P** refer **T** oys"

L	Lidocaine
B	B upivacaine
P	P rocaine
T	T etracaine

Xylocaine: where not to use with epinephrine

"Ears, Nose, Hose, Fingers and Toes"

Vasoconstrictive effects of xylocaine with epinephrine are helpful in providing hemostasis while suturing. However, may cause local ischemic necrosis in distal structures such as the digits, tip of nose, penis, ears.

"Digital PEN" - Digits, Penis, ear, nose.

**Six Questions to ask a conscious patient or his/her relative in a life-threatening emergency prior to taking him/her to the operating room:
SAMPLE?**

Smoking history?

Allergies to medications or previous anesthetics?

Medications or alcohol use?

Past medical history?

Last meal?

Events leading up to present injury or collapse?

Maintenance Intravenous Fluids in the Adult or Child: 4, 2, 1

4 mL/kg/hr for the first 10 kg

2 mL/kg/hr for the next 10 kg

1 mL/kg/hr for each remaining kg

Eg: A 37 kg adolescent requires $(4 \times 10) + (2 \times 10) + (1 \times 17) = 77$ mL/hr IV fluid

Behavioral science Psychiatric Nursing Mnemonics

Depression: major episode characteristics

SPACE DIGS

S	Sleep disruption
P	Psychomotor retardation
A	Appetite change
C	Concentration loss
E	Energy loss
D	Depressed mood
I	Interest wanes
G	Guilt
S	Suicidal tendencies

Depression: DSM-V Criteria for Major Depressive Disorder

"SIG E CAPS"

S	Sleep disturbances
I	I nterest decreased (anhedonia)
G	G uilt and/or feelings of worthlessness
E	E nergy decreased
C	C oncentration problems
A	A ppetite/weight changes
P	P sychomotor agitation or retardation
S	S uicidal ideation

Gain: primary vs. secondary vs. tertiary

Primary	Patient's Psyche improved.
Secondary	Symptom Sympathy for patient.
Tertiary	Therapist's gain

Kubler-Ross dying process: stages

"'Death Always Brings Great Acceptance"

D	Denial
A	Anger
B	Bargaining
G	Grieving
A	Acceptance

Middle adolescence (14-17 years): characteristics

“HERO”

H	H eterosexual crushes/ Homosexual Experience
E	Education regarding short term benefits
R	Risk taking
O	Omnipotence

Narcolepsy: symptoms, epidemiology

“CHAP”

C	C ataplexy
H	Hallucinations
A	Attacks of sleep
P	Paralysis on waking

Usual presentation is a young male, hence "chap"

Suicide: risk screening

“SAD PERSONS” scale

SAD

S	C ataplexy
A	Hallucinations
D	Attacks of sleep

PERSONS

P	P previous attempt
E	Ethanol abuse
R	Rational thinking loss
S	Social support problems
O	Organised plan
N	No spouse
S	Sickness (chronic illness)

Sleep stages: features:

DElta waves during DEepest sleep (stages 3 & 4, slow-wave).
dREaM during REM sleep.

Impotence causes

“PLANE”

P	P sychogenic: performance anxiety
L	Libido: decreased with androgen deficiency, drugs
A	Autonomic neuropathy: impede blood flow redirection
N	Nitric oxide deficiency: impaired synthesis, decreased blood pressure
E	Erectile reserve: can't maintain an erection

Male erectile dysfunction (MED): biological causes

“MED”

M	M edicines (propranolol, methyldopa, SSRI, etc.)
E	Ethanol
D	Diabetes mellitus

Endocrine Nursing Knemonics

Diabetes Complications

KNIVES

K	K idney – nephropathy
N	N euromuscular – peripheral neuropathy, mononeuritis, amyotrophy
I	I nfective – UTIs, TB
V	V ascular – coronary/cerebrovascular/peripheral artery disease
E	E ye – cataracts, retinopathy
S	S kin – lipohypertrophy/lipoatrophy, necrobiosis lipoidica

Anatomy Mnemonics

Afferent vs efferent

Afferent connection arrives and an efferent connection exits.

Anterior leg muscles

" **T** he **H** ospitals **A** re **N** ot **D** irty **P** laces"

T	Tibialis anterior
H	extensor H allucis longus
A	anterior tibial A rtery
N	deep fibular N erve
D	extensor D igitorum longus
P	P ronator teres [aka fibularis tertius]

Brachial plexus

Remember **T**o **D**rink **C**old **B**eer - **R**oots, **T**runks, **D**ivisions, **C**ords, **B**ranches

Posterior cord branches

STAR - subscapular (upper and lower), thoracodorsal, axillary, radial

RATS - **R**adial nerve, **A**xillary nerve, **T**horacodorsal nerve, **S**ubscapular (**U**pper & **L**ower) nerve.

ULTRA - upper subscapular, lower subscapular, thoracodorsal, radial, axillary

ULNAR - **U**pper subscapular nerve, **L**ower subscapular nerve, Nerve to latissimus dorsi, **A**xillary nerve, **R**adial nerve.

Lateral Cord Branches

LLM "Lucy Loves Me" - lateral pectoral, lateral root of the median nerve, musculocutaneous

Love **M**e **L**atha (**LML**) - **L**ateral pectoral nerve, **M**usculocutaneous nerve, **L**ateral root of Median Nerve.

Look My Lancer- **L**ateral pectoral nerve, **M**usculocutaneous nerve, **L**ateral root of Median nerve.

Medial Cord Branches

MMMUM "Most Medical Men Use Morphine" - medial pectoral, medial cutaneous nerve of arm, medial cutaneous nerve of forearm, ulnar, medial root of the median nerve

"Money Makes Many Men Unhappy" - Medial pectoral nerve, Medial cutaneous nerve of arm, Medial cutaneous nerve of forearm, Medial root of median nerve, Ulnar nerve.

"M4U" - Medial pectoral nerve, Medial cutaneous nerve of arm, Medial cutaneous nerve of forearm, Medial root of median nerve, Ulnar nerve

Union of **4 M** edials - **U**lnar nerve, **Medial** cutaneous nerve of arm, **Medial** cutaneous nerve of forearm, **Medial** pectoral nerve, **Medial** root of Median Nerve.

5 main nerves of brachial plexus, in order laterally to medially

"My Aunty Rocks My Uncle" - Musculocutaneous, axillary, radial, median, ulnar.

Bowel components

"Dow Jones Industrial Average Closing Stock Report "

From proximal to distal

D	Duodenum
J	J ejunum
I	I leum
A	A ppendix
C	C olon
S	S igmoid
R	R ectum

Carotid sheath contents

I See 10 CC's in the IV

I See	I See (I.C.) = Internal Carotid artery
10	10 = CN 10 (Vagus nerve)
CC	CC = C ommon C arotid artery
IV	IV = I nternal J ugular V ein

Cavernous sinus contents

O TOM CAT

O TOM are lateral wall components, in order from superior to inferior.

CA are the components within the sinus, from medial to lateral. CA ends at the level of T from O TOM.

O	Occulomotor nerve (III)
T	T rochlear nerve (IV)
O	O phthalmic nerve (V1)
M	M axillary nerve (V2)
C	C arotid artery
A	A bducent nerve (VI)
T	T : When written, connects to the T of OTOM

Celiac trunk (Coeliac trunk): branches

Level **H** and **S** ide (LHS)

L	Left gastric artery
H	Hepatic artery
S	Splenic artery

Vertebral column

The servant attacks with saw and axe the lumbar, stack and cord

C	Cervical (atlas, axis)
T	T horacic
L	L umbar
S	S acral
C	C occygeal

Tributaries of the Inferior vena cava

" **I** like **L** ike **T** o **R** ise **S** o **H** igh"

I	I liac vein (c ommon)
L	L umbar vein
T	T esticular vein
R	R enal vein
S	S uprarenal vein
H	H epatic vein

Greater sciatic foramen

Structures passing through greater sciatic foramen below piriformis
(S.N.I.P. N.I.P.)

S	Sciatic nerve
N	Nerve to obturator internus
I	I nternal pudendal vessel
P	P udendal nerve
N	Nerve to quadratus femoris
I	I nferior gluteal vessels
P	P osterior cutaneous nerve of thigh

Lesser sciatic foramen

Structures passing through lesser sciatic foramen: (P.I.N.T.)

P	Pudendal nerve
I	I nternal pudendal vessels
N	N erve to obturator internus
T	T endon of obturator internus

Tarsal tunnel

a mnemonic to remember the contents of the Tarsal tunnel from anterior to posterior is "Tom, Dick and Harry" or alternatively "Tom, Dick (and very nervous) Harry" if the artery, vein, and nerve are included.

Subclavian artery

The branches of the subclavian artery can be remembered using **VIT amin C and D**.

Posterior mediastinum

The contents of posterior mediastinum can be remembered using the mnemonic, " **DATES** "

D	D escending aorta
A	A zygous vein and hemiazygos vein
T	T horacic duct
E	E sophagus
S	S ympathetic trunk/ganglia.

Superior orbital fissure

S tanding r oom o nly can be used to remember that
V₁ passes through the **S**uperior orbital fissure

V₂ through the foramen **R**otundum

V₃ through the foramen **Q**vale.

Foramen magnum

Contents of the foramen magnum: **VAMPS-ATM**

V	V ertebral arteries
A	A nterior Spinal artery
M	M eningeal branches of the cervical nerves
P	P osterior spinal arteries
S	S pinal part of the accessory nerve
A	A lar and Apical ligaments of the dens
T	T ectorial membrane
M	M edulla oblongata

Cerebellum

Deep cerebellar nuclei and their positions relative to the midline: "Fat Guys Eat Donuts," where each letter indicates the medial to lateral location in the cerebellar white matter.

F	nucleus Fastigii
G	G lobose nucleus
E	nucleus E mboliformis
D	D entate nucleus.

Pes anserinus

A mnemonic to remember the muscles that contribute tendons to the pes anserinus and the innervations of these muscles is **SGT FOT** (S er G ean T FOT)

S	S- Sartorius
G	G - G racilis
T	T - semi T endinosus (from anterior to posterior).
F	F - F emoral nerve
O	O - O bturator nerve
T	T - T ibial division of the sciatic nerve.

Notice the order of the muscles (S, G, T) follows the order of the innervating nerves which correspond to those muscles (F, O, T).

Femoral triangle

The femoral triangle is shaped like the sail of a sailing ship and hence its boundaries can be remembered using the mnemonic, " **SAIL** "

S	Sartorius
A	A dductor longus
IL	I nguinal L igament.

The order of structures in the femoral triangle is important in the

embalming of bodies, as the femoral artery is often exposed and used to pump embalming fluids into the body. The order of this neurovascular bundle can be remembered using the mnemonic, " **NAVY** "

N	Nerve
A	A rtery
V	V ein
Y	SEE INSTRUCTIONS BELOW

Y -fronts (the British term of a style of men's underwear with a "Y" shaped front that acts as a fly). The "Y" is midline (corresponding with the penis) and the mnemonic always reads from lateral to medial (in other words, the Femoral Nerve is always lateral).

An alternate to this mnemonic is " **NAVEL** " for **N**erve, **A**rtery, **V**ein, **E**mpty Space and **L**ymp, to include the deep inguinal lymph nodes located medial to the Femoral vein.

Popliteal fossa

A useful **mnemonic** to remember popliteal fossa anatomy (medial-to-lateral arrangement) is: **S** erve **A** nd **V** olley **N** ext **B** all.

S	Semimembranosus and semitendinosus (superior medial border)
A	A rtery (popliteal artery)
V	V ein (popliteal vein)
N	N erve (tibial nerve)
B	B iceps femoris (superior lateral border). The lateral and medial heads of gastrocnemius form the inferior border.

Diaphragm apertures: spinal levels

Many mnemonics are used for diaphragm apertures including:

Number of letters

Aortic hiatus = 12 letters = T 12

Oesophagus = 10 letters = T 10

Vena cava = 8 letters = T 8

I ate 10 eggs at 12

I = IVC

ate = T8

10 = T10

Eggs = Esophagus

At = Aorta

12 = T12

(V)oice (O)f (A)merica

V- vena cava -T8

O-oesophagus-T10

A-aorta-T12

Duodenum: lengths of parts

"Counting 1 to 4 but staggered"

1 st part: **2** inches

2 nd part: **3** inches

3 rd part: **4** inches

4 th part: **1** inch

Endocrine glands

The major glands of the endocrine system, excluding ovaries and testes: "

T-A-P ." (T2, A3, P4)

T hymus

T hyroid

A nterior pituitary

A drenal cortex

A drenal medulla

P osterior pituitary

P arathyroid gland

P ancreas

Pineal

Extraocular muscles

A good mnemonic to remember which muscles are innervated by what nerve is to paraphrase it as a molecular equation: LR₆ SO₄ R₃.

Lateral **R**ectus - Cranial Nerve **VI**

Superior **O**blique - Cranial Nerve **IV**

the **R**est of the muscles - Cranial Nerve **III**

Another way to remember which nerves innervate which muscles is to understand the meaning behind all the Latin words.

The *fourth cranial nerve*, the trochlear, is so named because the muscle it innervates, the superior oblique, runs through a little fascial pulley that changes its direction of pull (the trochlea of superior oblique). This pulley exists in the superiomedial corner of each orbit, and "trochl-" is Latin for "pulley."

The *sixth cranial nerve*, the *abducens*, is so named because it controls the lateral rectus, which abducts the eye (rotates it laterally) upon contraction.

The *third cranial nerve*, the *oculomotor*, is so named because it is in charge of the movement (motor) of the eye (oculo-). It controls all the other muscles.

G.I. tract layers (simplified)

M.S.M.S

M	Mucosa
S	S ubmucosa
M	M uscularis propria
S	S erosa

Kidney functions

A WET BED

A	A – maintaining ACID-base balance
W	W – maintaining WATER balance
E	E – ELECTROLYTE balance
T	T – TOXIN removal
B	B – BLOOD Pressure control
E	E – making ERYTHROPOIETIN
D	D – Vitamin D metabolism

Lateral geniculate nucleus

A simple mnemonic for remembering **this** is "See I? I see, I see," with "see" representing the C in "contralateral," and "I" representing the I in "ipsilateral." Another is "Emily and Pete meet eye to eye" as in "M and P meet I to I," or again, Magno and Parvo meet Ipsi to Ipsi.

Another way of remembering **this** is $2+3=5$, which is correct, so ipsilateral side, and $1+4$ doesn't equal 6, so contralateral.

Placenta-crossing substances

WANT M y H ot D og

W	Wastes
A	A ntibodies
N	N utrients
T	T eratogens
M	M icroorganisms
H	H ormones, H IV
D	D rugs

Retina

A mnemonic to remember the layers of the retina:

<u>M</u> y	Membrane (internal limiting)
<u>N</u> erves	Nerve fibers
<u>G</u> et	Ganglions
<u>I</u> n	Inner plexiform
<u>K</u> <u>n</u> ots	Inner nuclear
<u>O</u> utside	Outer plexiform
<u>O</u> ur	Outer nuclear
<u>E</u> asy	External limiting membrane
<u>P</u> ractice	Photoreceptors
<u>R</u> eview	Retinal pigment epithelium

Sperm: path through male reproductive system
"My boyfriend's name is **STEVE** "

S	Seminiferous Tubules
E	E pididymis
V	V as deferens
E	E ejaculatory duct

Sternal angle

For structures lying at the level of the sternal angle, the following mnemonic can be used:

RAT PLLANT

R ib 2

Aortic arch

Tracheal bifurcation

Pulmonary trunk

Ligamentum arteriosum

Left recurrent laryngeal

Azygos Vein

Nerves (Cardiac and Pulmonary plexuses)

Thoracic duct

PLOT of EARTH PLLANTS

is a more detailed mnemonic including:

P hrenic and Vagus Nerve

Lymph Nodes

Oblique fissure of lungs (top of it)

T hymus

Esophagus (trending right to left)

Aortic Arch (bottom of the arch)

Rib 2, Manubrium-sternal angle, T4(more specifically T4-5 disc)

Tracheal Bifurcation (Carina: Latin –like keel of boat)

Heart

Pulmonary trunk bifurcation

L2 : Left Recurrent Laryngeal (Looping under Aorta); Ligamentum Arteriosum: Connects Aortic Arch to Pulmonary. Bifurcation

Azygous vein arches over the root of the Rt. Lung and opens in SVC.

Nerve plexi: Cardiac and Pulmonary Plexus

Thoracic duct (on its way to drain into the Left Subclavian)

SVC going down

Spine

Breakfast at 7:00--- 7 cervical vertebrae

Lunch at 12:00--- 12 thoracic vertebrae

Dinner at 5:00--- 5 lumbar vertebrae

Hand

Carpal bones:

S ome L overs T ry P ositions T hat T hey C an't H andle:

S caphoid, L unatum, T riquetrum, P isiforme, T rapezium, T rapezoid, C apitate and H amate

Carpal Bones:

S he L ooks T oo P retty T ry T o C atch H er:

S caphoid, L unate, T riquetrum, P isiforme, T rapezium, T rapezoid, C apitate and H amate

Carpal bones:

S cabby L ucy T ried P issing H ours after C opulating T wo T wins:

S caphoid, L unate, T riquetrum, P isiforme, H amate, C apitate, T rapezoid, and T rapezium:

In clockwise order from Scaphoid-remember zoids do not touch each other.

M. Hall

Carpal bones:

S o **L** ong **T** o **P** inky **H** ere **C** omes **T** he **T** humb:

S traight **L** ine **T** o **P** inky **H** ere **C** omes **T** he **T** humb:

S caphoid, **L** unatum, **T** riquetrum, **P** isiforme, **H** amate, **C** apitate, **T** rapezoid, **T** rapezium

Internal iliac artery: branches

I L ike G oing P laces U sing M y V ery O wn U nmanned V ehicle

Posterior division:

I liolumbar artery

L ateral sacral artery

Superior g luteal artery

Anterior division:

Inferior g luteal artery

Internal p udendal artery

U mbilical artery

M iddle rectal artery

Superior and inferior v esical artery

O bturator artery

U terine artery (female)

V aginal artery (female)

Coronal section of brain (structures)

"In Extremis, Cannibals Eat People's Globus Pallidi Instead of Their Hearts":

From insula to midline:

Insula

Extreme capsule

Clastrum

External capsule

Putamen

Globus pallidus

Internal capsule

Thalamus

Hypothalamus

Anterior Pituitary Hormones

FLAG TOP

F SH

L H

A CTH

G H

T SH

Melan **O** cyte Stimulating Hormone

Prolactin

Miscellaneous

When treating a fracture, keep PRICE in mind.

P	Pressure
R	Rest
I	Ice
C	Compression
E	Elevation

The symptoms of Hyperthyroidism can be grouped as STING.

S	Sweating
T	Tremors or Tachycardia
I	Intolerance to heat, Irregular period, Irritability, Irregular eyes (e.g., weakness or bulging)
N	Nervousness, Neurological (e.g., chorea, myopathy, paralysis)
G	Goitre, Gastrointestinal problems (such as vomiting, nausea, as well as constipation or diarrhea)

Mania is one of the primary symptoms of bipolar disorder. It can also be the side effect from the use of prescription medications as well as some illicit drugs. **DIG FAST** is the acronym for the symptoms of mania.

D	Distractibility
I	Indiscretion or excessive Involvement in pleasurable activities
G	Grandiosity
F	Flight of ideas
A	Activity increase
S	Sleep deficit (meaning, there is a decrease in the need for sleep)
T	Talkativeness

One last thing

If you satisfied from this book or found it useful, or even you feel you want to make suggestions or personal comments or opinions, I'd be very grateful if you'd post a short review to the final page. Your support really does make a difference and I will read all the reviews personally so I can get your feedback and make this book even better.

Thank you again for your support!