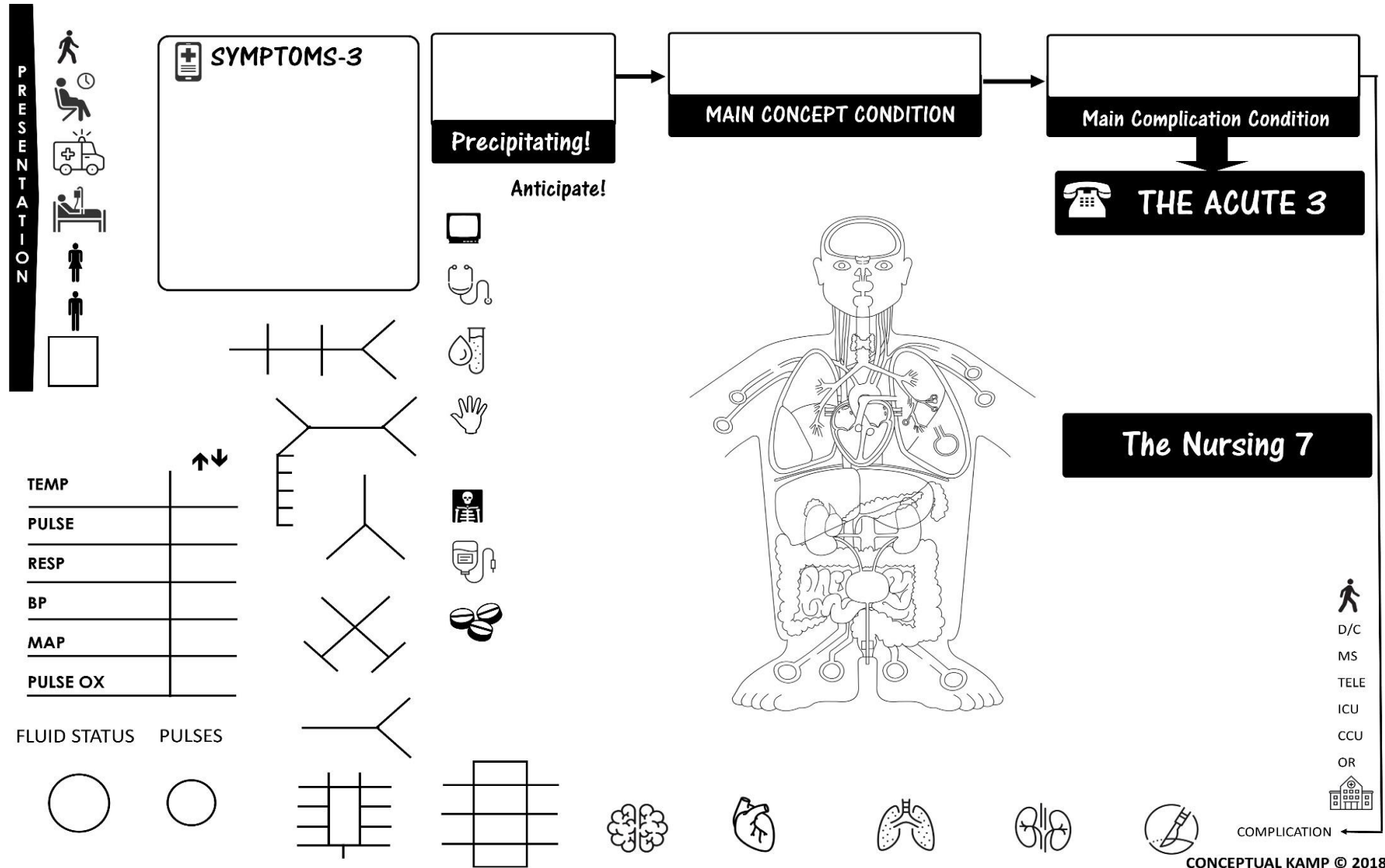


# Cardiac Lab Day 1


# FISHBONES the Why




# NURSINGKAMP BMP Basic Metabolic Panel Chem7 Chemistry 7 = Acute!

The BMP is a collection of labs evaluating the current electrolyte & Kidney functioning of the patient - Drawn inpatient daily or in acute situations

## Sodium High is Dry!

 Sodium Low- "Low Uhh Seizures Coma" Think the fluid is there but in the wrong place! Think 5 D' Diuretics, Drains, DKA, Dehydration, Diet

High or Low Look Somewhere else! Respiratory Metabolic?

BUN LOW CHRONIC-Liver  
BUN High then look at creatinine is it normal? Yes think Dry!   
If Both BUN & Creatinine is high think is it Acute or Chronic? ARF/CRD

High Why DIC? Diabetic 1-2? Infection Corticosteroids?



Na 135-145

Sodium

K 3.5-5.1

Potassium

Cl 95-105

Chloride

CO2 22-26

Carbon Dioxide

BUN 8-22


Blood Urea Nitrogen

CR 0.7-1.4


Creatinine

GLU 60-120

Glucose

 " K's Be high DUMP IT! ACUTE! Now HEART ECG! Potassium Low is Slow Replace! Too Low Respirations, Coma 3 P's of Low Potassium Peeing, Pooping and Puking!

High or Low Look Somewhere else! Respiratory or Metabolic?

Creatinine Low Chronic Creatinine anytime High Stop and Think is it Acute or Chronic?  Acute Renal Failure Chronic Renal Disease

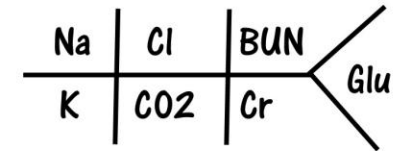
Low UHOHH! Dextrose 50 Juice  Crackers! 20g Carb

This fishbone is generally drawn with the Complete Blood Count CBC.

# ERKAMP BMP Basic Metabolic Panel - Chem7 - Chemistry 7

The BMP is a collection of labs evaluating the current electrolyte & Kidney functioning of the patient more important labs are Potassium K and Sodium- Chloride and CO2 are indicators requiring looking at Respiratory or Metabolic problems- BUN & Creatine Evaluate Kidney related issues whether acute or chronic along with along with glucose.

**Sodium Low is most acute - only raise 1 mEq an hour due to risk for herniation- Always monitor 6 Lit D's causes Drains, Diuretics, Diarrhea, DKA, Dehydration, Diet, & Lithium**



BMP **ER** Fishbone

- Could be life threatening, notify provider >150 ●
- Assess pt, vitals, labs, might do 145-150 ●
- Interventions may notify PCP
- Normal Lab Values 135-145 ●
- Assess pt, vitals, labs, might do 130-135 ●
- Interventions may notify PCP
- Could be life threatening <130 ●

**Na 135-145 Sodium**

**K 3.5-5.1 Potassium**

**Potassium high is an acute finding that should be addressed! Place on Monitor, EKG Notify PCP-May tx with CD-KING HEMO**

**"C D KING Hemo"- Calcium Chloride/ Gluconate- Diuretics Kayexalate, Insulin, Glucose, Hemodialysis**

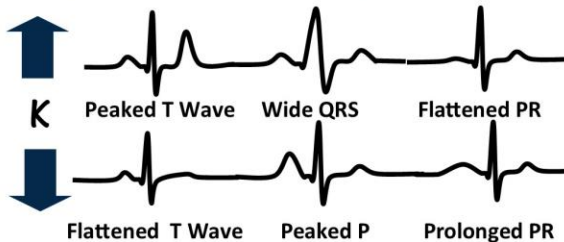
- Could be life threatening, notify provider >5.4 ●
- Assess pt, vitals, labs, might do 5.1-5.4 ●
- interventions may notify Provider 3.5-5.1 ●
- Normal Lab Values 3.0-3.5 ●
- May replace- Stop NG Tubes, Diuretics <3.0 ●

High or Low Look Somewhere else is it a Respiratory or Metabolic problem?

Cl 95-105 Chloride

CO2 22-26 Carbon Dioxide

High or Low Look Somewhere else is it a Respiratory or Metabolic problem?



**BUN LOW CHRONIC-Liver**

**BUN High then look at Creatinine is it normal? If Yes think Dry! If Both BUN & Creatinine is high think is it Acute or Chronic? ARF/CRD**

**BUN 8-22**

**Blood Urea Nitrogen**

**Cr 0.7-1.4 Creatinine**

**Creatinine Low Chronic Condition**

**Creatinine anytime High Stop and Think is it Acute or Chronic?**

**Acute Renal Failure (ARF)**

**Chronic Renal Disease (CKD)**

GLU 70-110

High Why DIC? Diabetic 1-2? Infection Corticosteroids?



**High or Low always get a POC fingerstick Assess PT**



**Low Glucose may treat with G-50-20-30 Conscious? Glucagon 20-30 Carb Unconscious D-50**

**Low K May Replace Never Bolus Potassium Give Only 10-20 meq hour In Order to Raise 1 mEq/l K3.0-3.5 = needs 100-200 mEq K< 2.9 = needs 200-400 mEq**

**Acute High Infection** ★  
Never-Neutrophils-Bacterial Infections  
Let-Lymphocytes- Viral Infections  
Me-Monocytes- Chronic Infections (TB)  
Eat-Eosinophils- Eating Parasites  
Beans-Basophils- Bee Stings Allergic

**WBC—White Blood Cells**  
4k-10k

**Low Think Chronic**  
Autoimmune  
Lupus - Leukemia  
Aplastic Anemia  
Chemotherapy

Low then look at HCT first is it low then think is it  
Acute or Chronic?  
Low is Acute is Bleeding!  
Low is Chronic  
Chronic Kidney Disease, Anemia, Cancer Leukemia

**Hemoglobin—Hgb**

12-18

(12-16 Female or 14-18 Male)

**Hematocrit—HCT**

36-48%

**HIGH HCT with Normal Hgb is DRY**  
If it is Low then look at Hgb first is it low  
then think is it Acute or Chronic?  
★ Low is Acute is Bleeding!  
Low is Chronic -Chronic Kidney Disease,  
Anemia, Cancer Leukemia

High  
Chronic  
Cancer

**Platelets**  
145k—450k

**Low Acute** ★  
Sepsis  
Bleeding  
Chronic  
Liver  
Cancer

# ERKAMP CBC Complete Blood Count with Differential

High WBC >10-12K may be signs of infection, inflammation or steroids.

Infection generally takes 72 hours to manifest. When the WBC is elevated you should further evaluate the Differential

## Elevation of Differential

Neutrophils- Bacterial Infections

Lymphocytes- Viral Infections

Monocytes- Chronic Infections

Eosinophils- Eating Parasites

Basophils- Bee Stings Allergic

Fluctuations of WBC Causes

Autoimmune, Lupus - Leukemia

Aplastic Anemia, Chemotherapy

## Meds that cause BLEEDING

Clopidogrel	NSAIDS
Heparin	Escitalopram
ASA	Coumadin

<b>HERBS</b> Garlic
Ginseng Ginger
Gingko

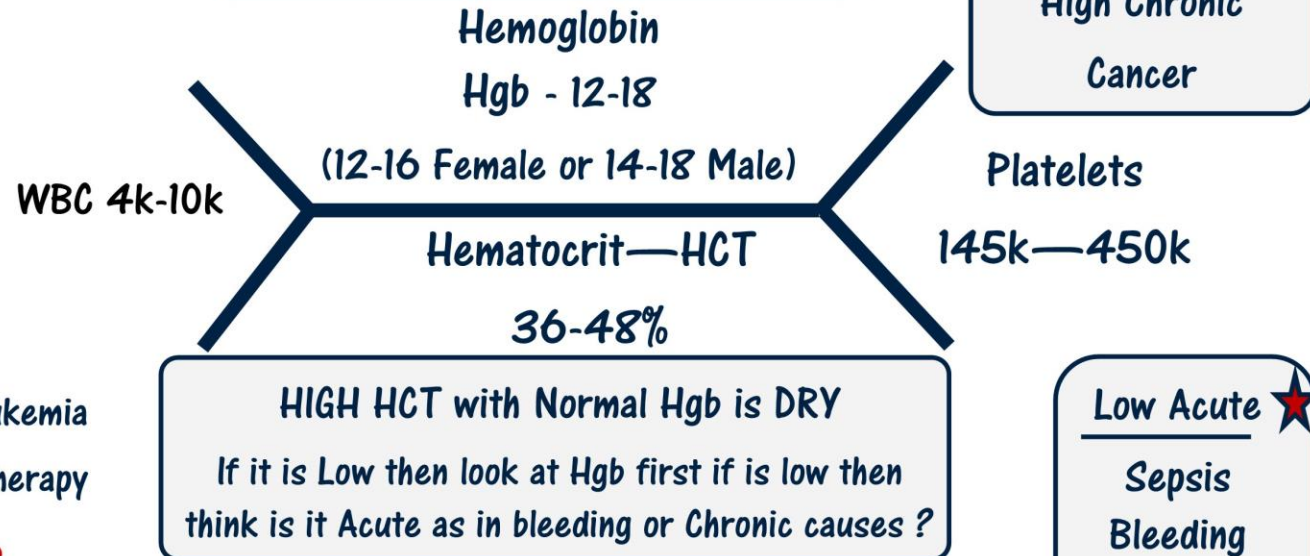
Low Platelets Risk For Bleeding Monitor Petechiae, Purpura, Stools

Low then look at HCT first is it low then it could be Acute or Chronic?

Low Acute is Bleeding!

Low Chronic could be Chronic Kidney Disease, Anemia, Cancer Leukemia

Invasive procedures, surgeries should be questioned if platelets are lower than <60k



## Meds that affect Platelets

Chemo	Sulfonamides	Antibiotics
Quinidine	Meprobamate	Phenybutazone
Thiazide Diuretics		Streptomycin

# Cardiac Labs

**Chronic Labs** are used to identify risk for CAD initially a total cholesterol is drawn then if that is  $>200$  a fasting lipid panel is completed-the results of that lipid panel will dictate further action based on modifiable vs non-modifiable factors.

**Acute Labs** are used to identify risk or actual cardiac injury as a result of Myocardial Ischemia leading to Infarction. Generally, they are drawn in 3 sets 6-8 hours apart though policy may be different at your facility. If the enzymes keep rising further evaluation telemetry monitoring is necessary.

**Total Cholesterol**  
First Screening for CAD or Risk if it is greater than 200 Lipid Panel is usually recommended

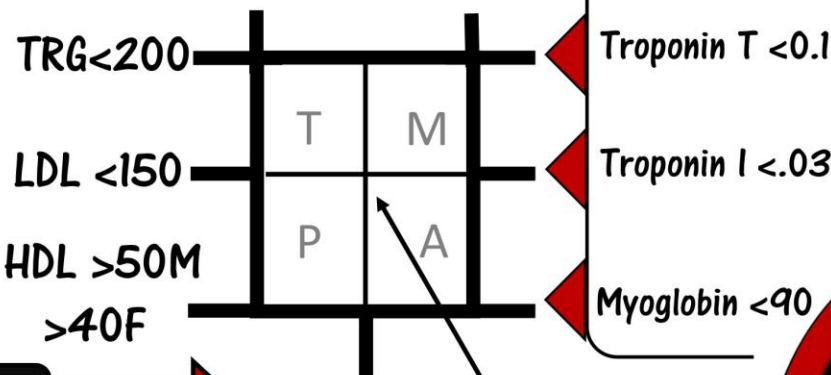
Inflammation Risk for CAD  
Total Cholesterol  $<200$  C-Reactive Protein CRP  $<3$

**Cardiac Enzymes 3 sets** -Every 6-8 Hours

All Cardiac Enzymes begin to rise within 2-3 hours of injury Troponin T is First to Rise then Troponin I- Total CK % has a duration of 2- 3 days

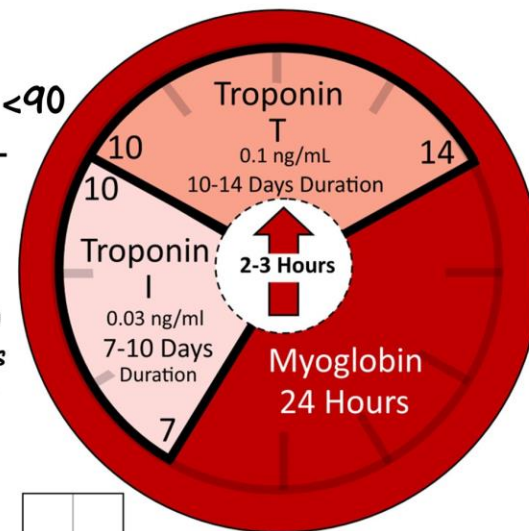
**"Fasting" LIPID PANEL**

- Triglycerides Want Low
- Bad Fats in the Bloodstream circulatory Risk for CAD
- LDL "Lousy want them Low" Bad Cholesterol
- HDL—"Happy want it High" Good Cholesterol removes LDL



Troponin T  $<0.1$   
Troponin I  $<.03$   
Myoglobin  $<90$

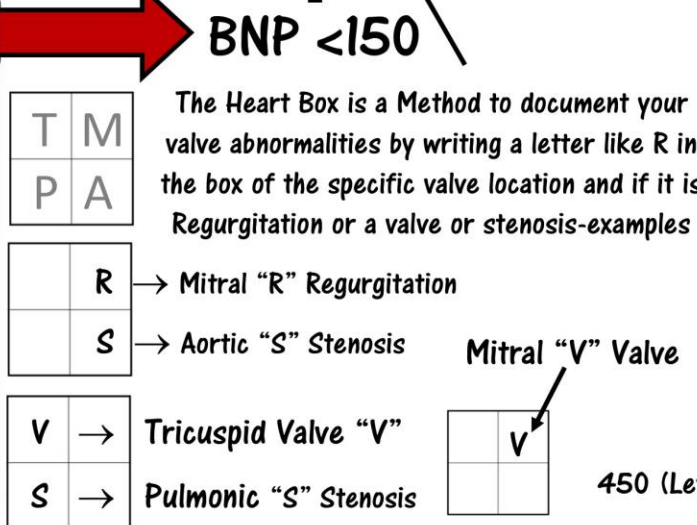
Duration of Cardiac enzymes vary making timing of the patient imperative



**BNP-Brain Natriuretic Peptide**

Patient's suspected of having Congestive Heart Failure(CHF) anticipate a "BNP" being drawn if it is positive then there is a likelihood the patient has CHF. (Chronic CHF patients may be lower)

$<150$  No - Congested Heart Failure  
 $>150-500$  Probable CHF  
 $>500$  Indicative of CHF



Arrow points to either right or left sided CHF with BNP

S 403B JB 67 \*CHF\*11/2-Dr John **NPO** FC nkda VRE  
 HD/m **w** f L-BKA w/lassist TEE/am

ROOM  
 N=Name  
 A=Age  
 G=Gender  
 A-Admit For ? Date ? DR  
 D-Diet  
 U-Up Down Mobility  
 C-Code Status  
 K-Known Allergies  
 S-Standard Precautions or other  
 B-Blind?  
 E-Ears?  
 A-Amputee  
 C-Chemo  
 H-Hemodialysis PT

## Statistics

This section is the statistical information that is important to start out in report and lay the foundation of presentation—Notable obvious deformities should be expressed at this time considered BEACH

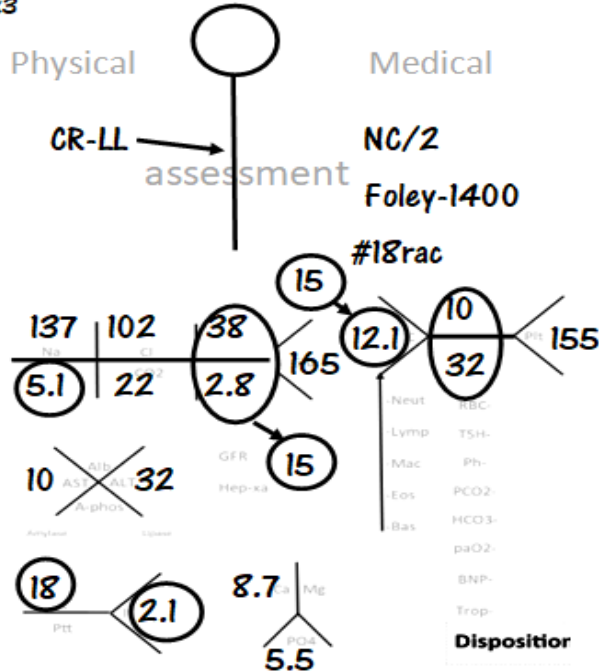
B-Blind  
 E-Ears—Hard of hearing  
 A-Amputees  
 C-Chemo Patients  
 H-Hemodialysis Patients

Boxing an item indicates there is a second assessment that should be reported ie AFIB(on anticoagulants? What was the PT/INR/ are they AFIB Now on monitor)

## A

Vitals 36.2/88/16/120/80 98% ECG-AFIB/RVR

Ax0x3

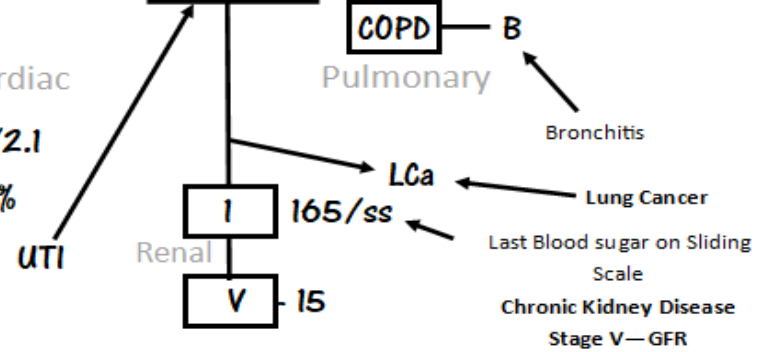


## H

HTN  
 CAD  
**AFIB** 18/2.1  
**CHF** 55%

Cardiac

## History



This is sectioned into the three main areas that would cause complication of the patient. Other medical comorbidities are less likely to cause immediate complications. The Complex Conditions include CPRI C-Cardiac P-Pulmonary R-Renal I-Infection

## M

Medications of Consequence

C R I P L

Lisinopril

**Coumadin** 18/2.1

Metoprolol

Lasix IV 1500

piperacillin 1600 DuoNeb/1400

**digoxin** 1.2

prn-Tylenol-h/A 1400

This is section is Meds of Consequence mainly representing medications that are acute or that you need to know and should report on these are called CRIPL C Renal IV Infection (antibiotics) Pulmonary (only duo-nebs) Level Medications (coumadin, digoxin etc)

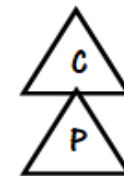
## D

**CXR** PEF

**ECHO** 55%

Diagnostics

## C



Consults



Room/Name \_\_\_\_\_ Age Gender \_\_\_\_\_

Full Code: DNR DNI HCP MOST Advanced Directive

Allergies:

Admit Date \_\_\_\_\_ Primary

Admit Dx \_\_\_\_\_

Mobility: AD-LIB Assist 1 2 FULL Cane Walker Bedrest

BR Priv Commode Neuro Checks Restraints Bed Alarms

Precautions: FALL - Elope LOC Diet

CDIFF MRSA VRE FLU ADx3 NPO

OBS 1:1 Neutropenic Confused Daily Weights

Last BM \_\_\_\_\_

**PAST HISTORY**

Angina	CAD	HTN	↑ Lipid	PVD	ACS
MI	Cath	CABG	Stent	CHF R	CHF L
Cardiac Other					
DVT	PE	COPD-E	COPD-B	Asthma	PNA
Pulmonary—Other					↑ Thyroid ↓
HD	PD	CKD	DM 1	DM 2	
AKI	Ulcer	Divert	Seizure	Smoker	ETOH
Seizure	CA	Glaucoma	Hepatitis	Cataracts	Dementia
Other HX					

**CURRENT CONSULTS TEST**

XRAY	MRI	CT	ECHO
------	-----	----	------

**US CATH**

T	P	R	BP	MAP	O2
T	P	R	BP	MAP	O2
T	P	R	BP	MAP	O2

IV # \_\_\_\_\_ R L SL DATE: \_\_\_\_\_

Site: AC FA HAND Wrist

Central: IJ TLC PICC Port

Dialysis G S

IVF: NS 0.45 NS D51/2 DSNS LR \_\_\_\_\_ cc/hr \_\_\_\_\_ ukg/hr

Blood TPN Lipids

**CARDIOVASCULAR — EKG** Telemetry Lead Rate **NURSINGKAMP**

SB NS ST Afib Aflutter A-Paced F D V-Paced F D Edema

AV Paced AICD Block 1 2 3 PAC's PVC's Pulses

Heart Sounds: S1 S2 S3 S4 Murmur I II III IV V

Pulses: R I W T B Doppler

Pulse Trend: \_\_\_100\_\_\_-90\_\_\_-80\_\_\_-70\_\_\_-60\_\_\_-50\_\_\_

VTE Prophylaxis: SCD's Foot Pumps Heparin Lovenox Coumadin Other

**PULMONARY — O2@** \_\_\_ L NC VM PRB NRB CPAP BIPAP FIO2 \_\_\_ TRACH # F NF C U

Breath Sounds: Clear Diminished Coarse Wheezes Crackles

Cough: Productive Non-Productive—

Treatments: Nebs \_\_\_ ISP \_\_\_ CPT

O2 Sats Trend: 100-----95-----90 \_\_\_

Rate Trend: \_\_\_24-----20-----16 \_\_\_

Chest Tube: R L Pneumo Hemo

**Endocrine/GU** Voiding Anuria Urinal Bedside Commode Bedpan Incontinence Assist 1 2 I

Bowel Sounds: Hypo Hyper Active Nausea Vomiting \_\_\_ Diarrhea \_\_\_

NGT: R L — Green Clear Red \_\_\_ Amount: \_\_\_\_\_

G - J TUBE: CKD Dialysis: M T W T F Sa Su

Foley: # F Clear Cloudy Amber Bloody Intake \_\_\_ Output \_\_\_

**Skin/Drains/Dressings** CDI Dressings 1 2 3 4 5

Weakness: RUE LUE RLE LLE

Numbness: RUE LUE RLE LLE

Pain: 1 2 3 4 5 6 7 8 9 10 Location:

Med: Frequency:

Trend Pain: 1 2 3 4 5 6 7 8 9 10

**MEDICATIONS**

**MEDS PRN**

HgA1c	BG	AC B	AC L	AC D	HS	nursingkamp.com ©2020	Consulted:
New Orders/Pending							Speech
							CM
							PT
							OT
							GI
							Cardiology
							Neuro
							Renal
							Wound
							Ortho
							Pulm
Disposition: Home Home Health NH ALF SCF REHAB							Surgical

Room/Name  
Age Gender  
HCP

Allergies

- FC
- DNR
- DNI
- LW
- HCP
- MOLST

Admit Date:

DX

PCP

Consults:  C  P  R  ID  PSY  Neuro  Surg  Wound  Ortho  PT  OT  SW

PMHX:  CAD  HTN  PVD  ACS  MI  A-FIB  Aflutter  Cath  CABG x  Stent x  CHF R L  SNF

PE  DVT  COPD  Asthma  Emphysema  PNA  COVID  CKD

ESR S M T W T F S  PD  DM 1  DM 2  AKI  Stroke  CA

Depression Thyroid ↑ ↓  Seizure

Smoker  ETOH SCALE \_\_\_\_\_ SCORE \_\_\_\_\_

Precautions	LOC	A&O x	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3	<input type="checkbox"/> Confused <input type="checkbox"/> Lethargic
<input type="checkbox"/> FALL	TIME			MEDICATIONS & TREATMENTS
<input type="checkbox"/> ☠ D	TEMP			
<input type="checkbox"/> ☠ A	PULSE			@
<input type="checkbox"/> ⓘ S	RESP			@
<input type="checkbox"/> ☞ C	BP			@
<input type="checkbox"/> CDIFF	SPO2			
<input type="checkbox"/> MRSA	PAIN			
<input type="checkbox"/> VRE				
<input type="checkbox"/> OBS				
<input type="checkbox"/> 1:1				
<input type="checkbox"/> Neut				
<input type="checkbox"/> Sitter				

WNL  NCL %  CPAP  BiPap



NEBS  Chest Tube

Trach #  C  U

Incentive S@BS

ECG—Lead  NSR  ST  SB  A-fib  A-Flutter

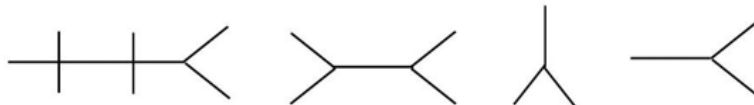
RATE  PAC  PVC  AV Block  1  2  3

EF %  S1  S2  S3  S4  MURMUR

VALVE T P M A

T	M
P	A

BS BS BS BS A1C



NG  R-  L  PEG  ILIOST  COLOST

NPO-

TPN

DIET

BM

Foley Output:

Intake:

### Lines

### GTT's

IV #

IV #

PICC  I-Port A D  TLC

TPN  LIPIDS  BLOOD

### Edema

0

1

2

3

4

P

W

Drains

JP

HV

WV

To Do/ Orders/Notes

\_\_\_\_\_ @ \_\_\_\_\_

\_\_\_\_\_ @ \_\_\_\_\_

\_\_\_\_\_ @ \_\_\_\_\_

### MEDS TREATMENTS OTHER

07

19

08

20

09

21

10

22

11

23

12

24

13

01

14

02

15

03

16

04

17

05

18

06

19

07

AS VS BS TU LI DR RX OOB I/O

### SCHEDULED

Cath  US  MRI  CT

CXR  Dop  Stress T

ECHO  EEG  Surgical

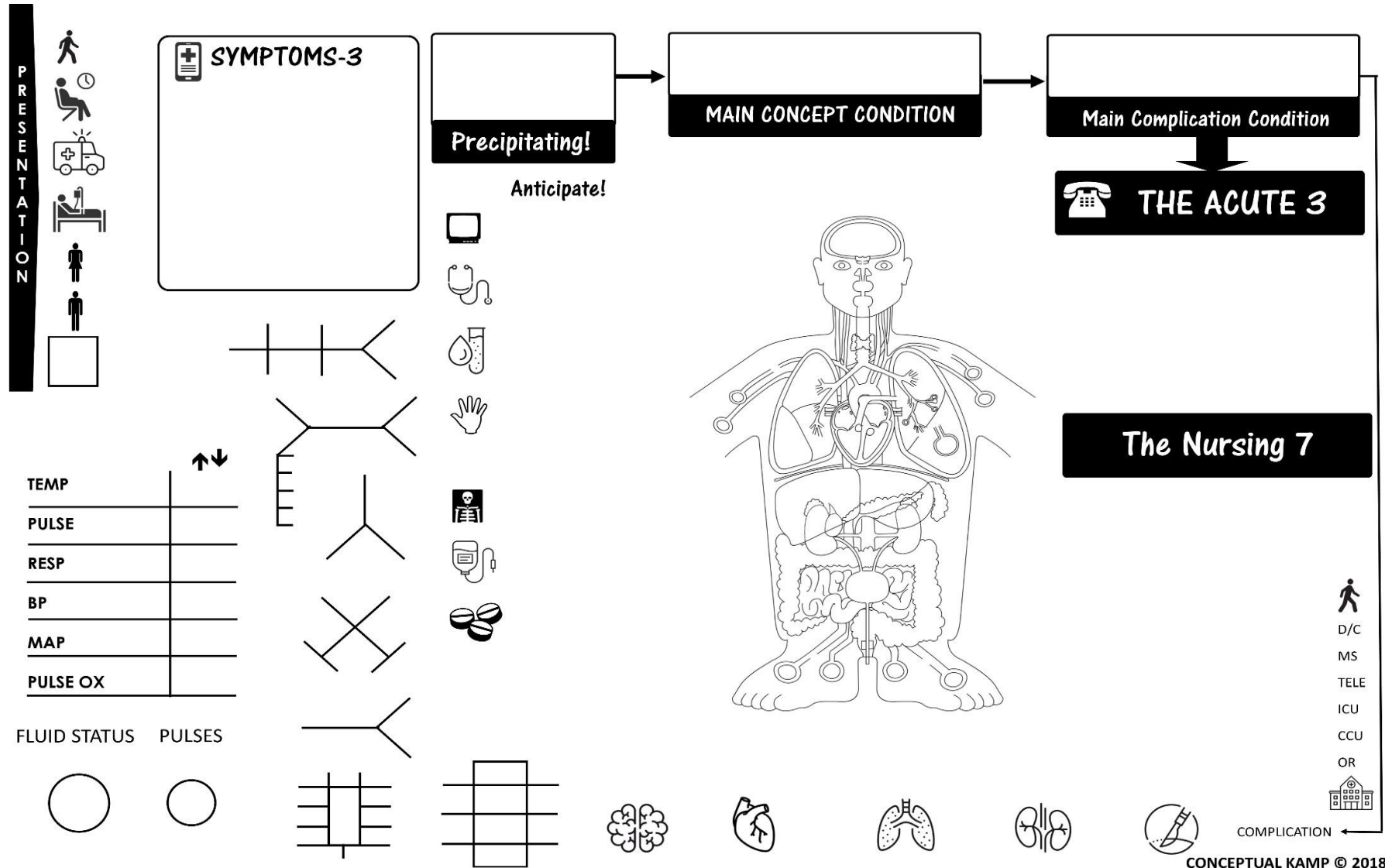
Discharge:  F-Meeting

Home  Home Health

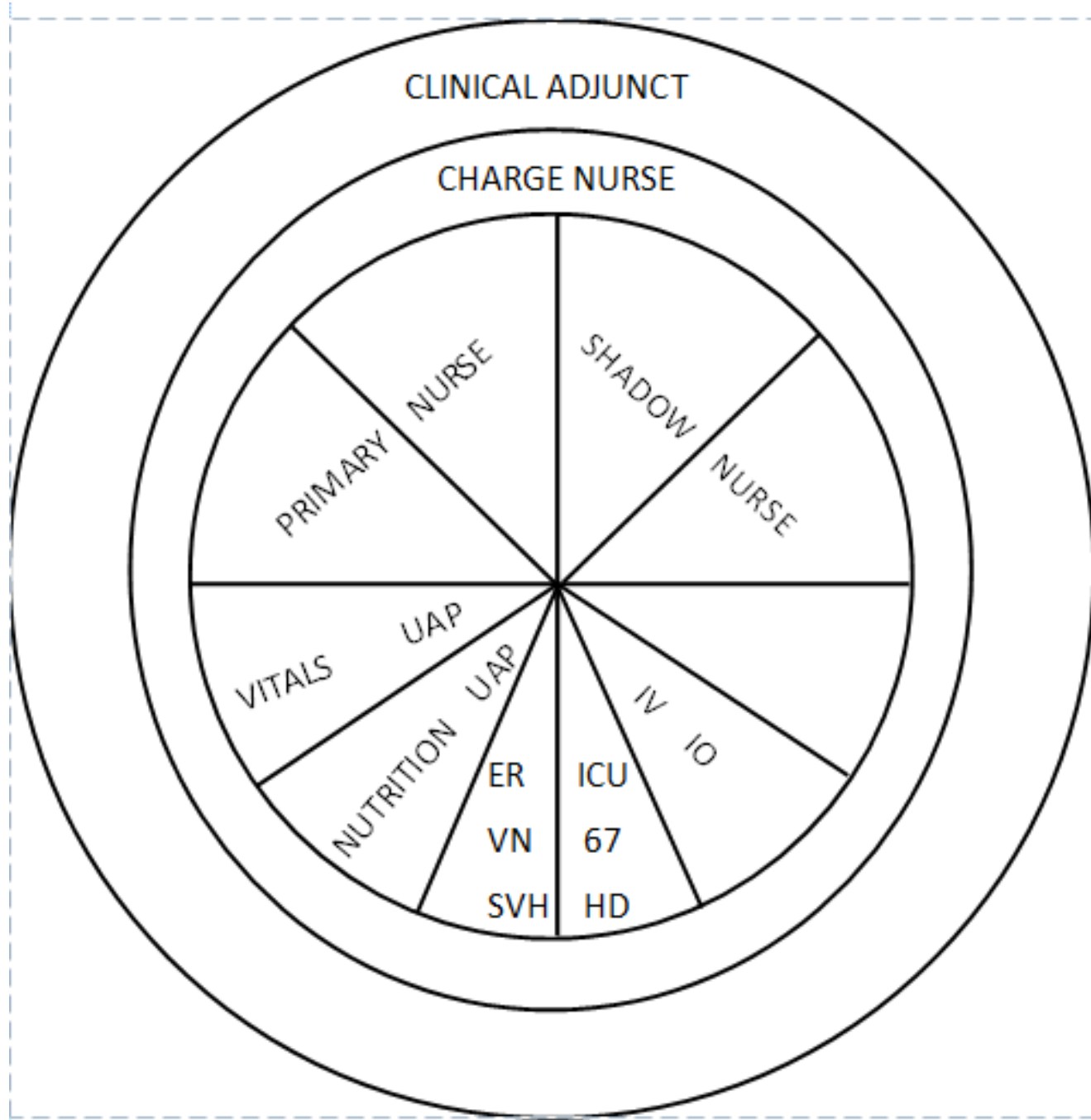
Rehab  SNF  ALF

NH  Hospice

# FISHBONES the Why

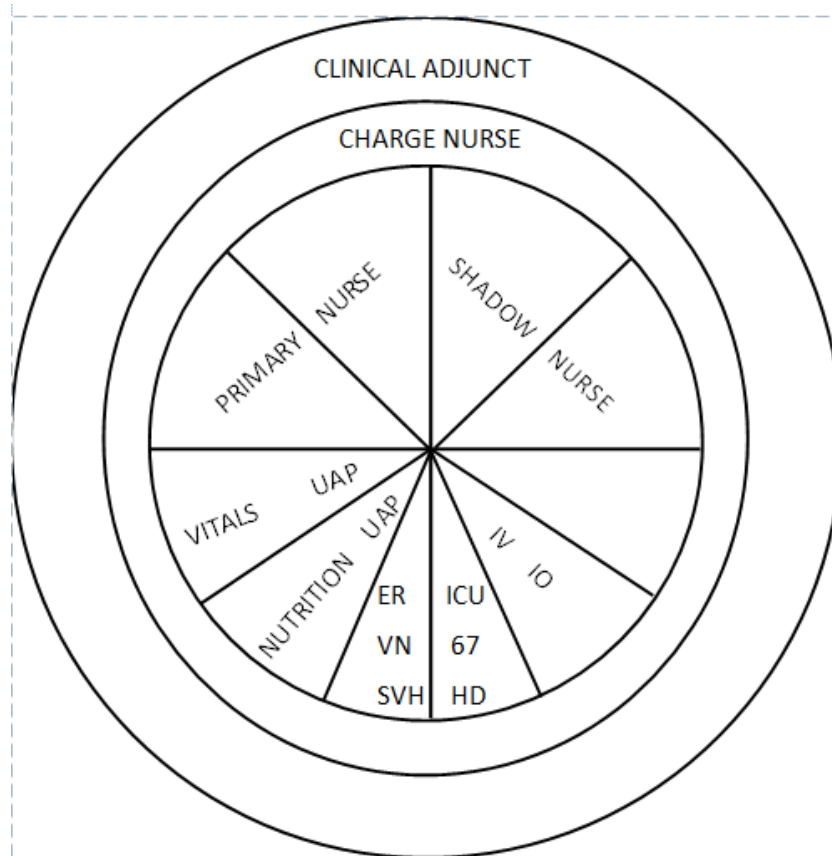


Clinical Roles  
10 POINTS



# Clinical Roles

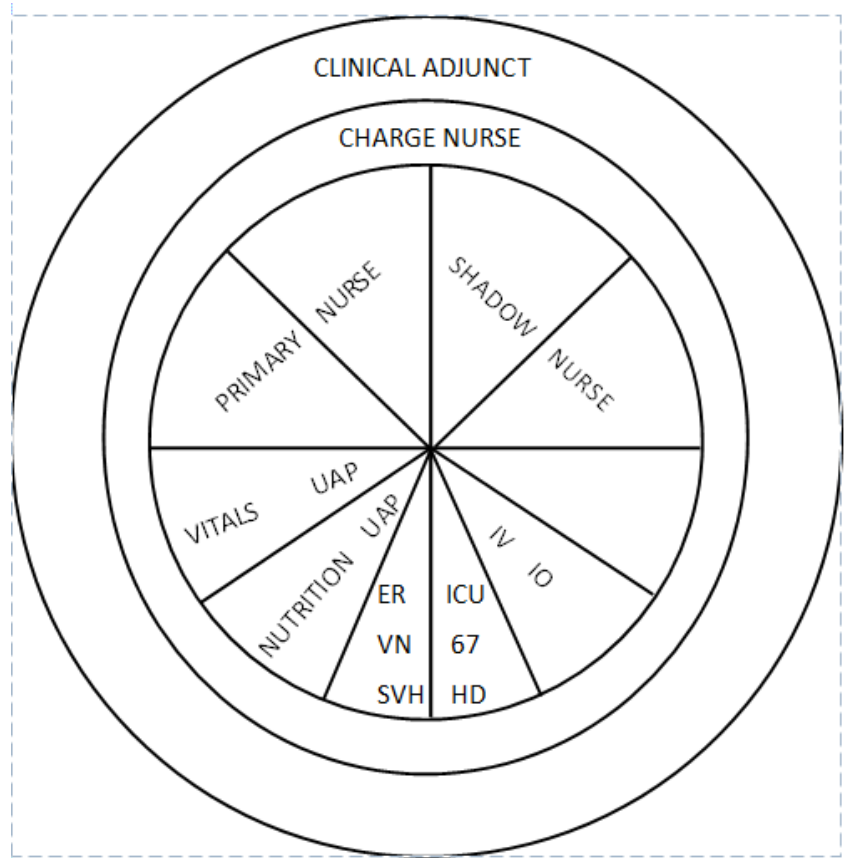
**P1RN Primary Nursing**  
**Total Care with 1-2 Patients**  
**IV Meds**  
**PO Meds**  
**Skills Validated**  
**Reflection Papers**  
**SHAMLDC3**  
**SBAR**



Room/Name	Age Gender	<b>CARDIOVASCULAR — EKG</b>	Telemetry	Lead	Rate	<b>NURSINGKAMP</b>
Full Code	DNR DNI HCP MOST Advanced Directive	SB NS ST Afib Aflutter A-Paced F D V-Paced F D				Edema
Allergies:		AV Paced AICD Block 1 2 3 PAC's PVC's			Pulses	0 1 2 3 4
Admit Date	Primary	<b>Heart Sounds:</b> S1 S2 S3 S4 Murmur I II III IV V				1 2 3 4
Admit Dx		<b>Pulses:</b> R I W T B Doppler				P W T G
<b>Mobility:</b>	AD-LIB Assist 1.2 FULL Cane Walker Bedrest	<b>Pulse Trend:</b> 100--90--80--70--60--50				
BR Priv	Commode Neuro Checks Restraints Bed Alarms	<b>VTE Prophylaxis:</b> SCD's Foot Pumps Heparin Lovenox Coumadin Other				
<b>Precautions-</b> FALL — Elope	LOC Diet	<b>PULMONARY — O2@</b> ___ L NC VM PRB NRB CPAP BIPAP FIO2 ___ TRACH # ___ F NF C U				
ADx3 NPO	ADx3 NPO	<b>Breath Sounds:</b> Clear Diminished Coarse Wheezes Crackles				
CDIFF MRSA VRE FLU	D P P Strict I&O	<b>Cough:</b> Productive Non-Productive—				
OBS 1:1 Neutropenic	Confused Daily Weights Last BM	<b>Treatments:</b> Nebs ___ ISP ___ CPT				
<b>PAST HISTORY</b>		<b>O2 Sats Trend:</b> 100-----95-----90				
Angina CAD HTN ↑Lipid PVD ACS	MI Cath CABG Stent CHF R CHF L	<b>Rate Trend:</b> 24-----20-----16				
Cardiac Other		<b>Endocrine/GU</b> Voiding Anuria Urinal Bedside Commode Bedpan Incontinence Assist 1 2 I				
DVT PE COPD-E COPD-B Asthma PNA	Pulmonary—Other ↑Thyroid ↓	<b>Bowel Sounds:</b> Hypo Hyper Active Nausea Vomiting ___ Diarrhea ___				
HD PD CKD DM 1 DM 2	AKI Ulcer Divert Seizure Smoker ETOH	<b>NGT:</b> R L — Green Clear Red ___ Amount: ___				
Seizure CA Glaucoma Hepatitis Cataracts Dementia	Other HX	<b>G - J TUBE:</b> CKD Dialysis: M T W T F Sa Su				
<b>CURRENT CONSULTS TEST</b>		<b>Foley: #</b> F Clear Cloudy Amber Bloody Intake ___ Output ___				
XRAY MRI CT ECHO	US CATH	<b>Skin/Drains/Dressings</b> CDI Dressings 1 2 3 4 5				
T P R BP MAP O2	T P R BP MAP O2	<b>Weakness:</b> RUE LUE RLE LLE				
T P R BP MAP O2	T P R BP MAP O2	<b>Numbness:</b> RUE LUE RLE LLE				
IV # ___ R L SL DATE: IVF: NS 0.45 NS DS1/2 DSNS LR		<b>Pain:</b> 1 2 3 4 5 6 7 8 9 10 Location:				
Site: AC FA HAND Wrist		<b>Med: Frequency:</b>				
Central: IJ TLC PICC Port		<b>Trend Pain:</b> 1 2 3 4 5 6 7 8 9 10				
Dialysis G S		<b>MEDICATIONS</b>				
Blood TPN Lipids		<b>MEDS PRN</b>				
IV # ___ R L SL DATE: IVF: NS 0.45 NS DS1/2 DSNS LR		HgA1c BG AC B AC L AC D HS nursingkamp.com ©2020				
Site: AC FA HAND Wrist		<b>New Orders/Pending</b>				
Central: IJ TLC PICC Port		Na K Cl CO2 BUN Cr Glu WBC Hgb HCT %H				
Dialysis G S		ASAT ALT Hep-xx AST ALT n-phos Ureae				
Blood TPN Lipids		Plt HR Ca Mg				
		<b>Disposition:</b> Home Home Health NH ALF SCF REHAB				

# Clinical Roles

**P1RN Primary Nursing**  
**Total Care with 1-2 Patients**  
**IV Meds**  
**PO Meds**  
**Skills Validated**  
**Reflection Papers**  
**SHAMLDC3**  
**SBAR**



S-SITUATION		NURSINGKAMP						B-BACKGROUND					
I am calling about—		Angina	MI	AFIB	CABG	HTN	ACS						
Room/Name		CHF	COPD-E	COPD-B	Asthma	CKD	DM I II						
Age Gender		Seizures	Dementia	Other									
Code Status—FC DNR DNI HCP MOST		Patient is Currently— Alert Oriented											
Allergies:		Person Place Time Confused changed yes no											
Admit Date Primary		<input type="checkbox"/> Confused—Cooperative Non Cooperative <input type="checkbox"/> Agitated Combative <input type="checkbox"/> Lethargic but conversant able to swallow <input type="checkbox"/> Stuporous not talking clearly possibly not able to swallow <input type="checkbox"/> Comatose— Eyes Closed Not responding to stimulation											
Admit Dx		Skin is: Warm Dry Pale Mottled Diaphoretic Extremities Cold Hot											
The problem I am calling about is-		T P R BP MAP O2						Pulses					
I just assessed the pt personally vitals are-		Previous were						Edema					
I am concerned about the		T P R BP MAP O2						0 1 2 3 4 P W					
BP >200 <100 30mm difference								Pulse >130 < 50					
Pulse								Resp < 8 >30					
Resp								Temp <96 > 103					
Temp								Pulse Oximetry					
Pulse Oximetry								The Patient is — on Oxygen Not on Oxygen					
A-ASSESSMENT MEDS								The patient has been on (l/pm) % for					
R-RECOMMENDATIONS								hours/minutes O2 Sats Nebs					
This is what I think the problem is		I would like to suggest:						Are there any test needed:					
Problem seems to be Cardiac Pulmonary Neuro Infection Meds		<input type="checkbox"/> Transfer to ICU <input type="checkbox"/> Come see the patient <input type="checkbox"/> Talk to patient or family about code status <input type="checkbox"/> Ask on-call to see patient now <input type="checkbox"/> Ask for a consultant						Do you need any test like CXR ABG EKG CBC BMP					
I'm not sure what the problem is but the patient is deteriorating.		The patient seems unstable and may get worse, we need to do something.						Would you like any changes?					
PH PaCo2 HCO3 PaO2 Lactic Acid Troponin		Na Cl BUN Glu WBC Hgb PRt Ca Mg K CO2 Cr HCT HPT -PG4						How often would you like vital signs? How long do you expect this problem will last If the patient doesn't get better would you want to be called back and when?					
		nursingkamp.com ©2020											

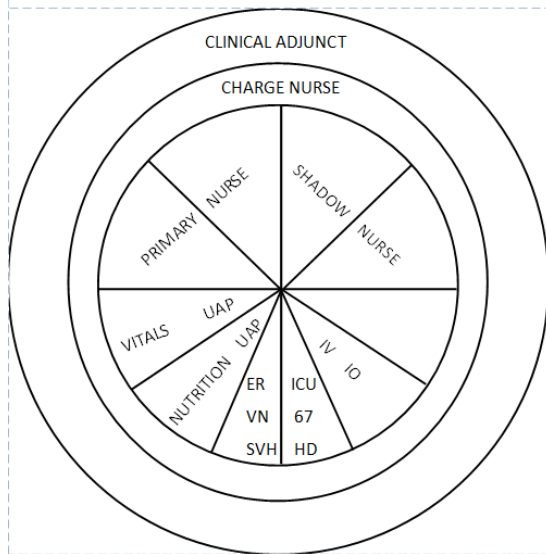
# Clinical Roles

**P2VS Primary Nursing**  
**Meet with Tech On Floor**  
**Do vitals on floor**  
**Complete VS Sheet**  
**SBAR 2 Patients**

Vital Nursing Assessment

Room/DOA	Diagnosis	PRICE				Admission Labs-Diff	
		P	R	I	C	E	
Admit VS	T- P- R- O2-	BP/MAP-	Current Labs				
	T- P- R- O2-	BP/MAP-					
	T- P- R- O2-	BP/MAP-					
Antibiotics- MOST PT DO WISH		Duo/Neb	Oxygen	BP Meds			

NV-C-07 Revised 1/6/2025



Date of Admmission

Circle HISTORY

Pulmonary Renal Infection Cardiac on ECG What

Admission Labs

Vital Nursing Assessment

Room/DOA	Diagnosis	PRICE				Admission Labs-Diff	
		P	R	I	C	E	
Admit	Admit VS	T- P- R- O2-	BP/MAP-	Current Labs			
Vitals		T- P- R- O2-	BP/MAP-				
2 Sets		T- P- R- O2-	BP/MAP-				
Per shift	RN LPN	Antibiotics- MOST PT DO WISH	Duo/Neb	Oxygen	BP Meds		

Circle RN or LPN

Identify on Antibiotics?

On duo Neb?

On Oxygen how Much

Any BP Meds

Current labs

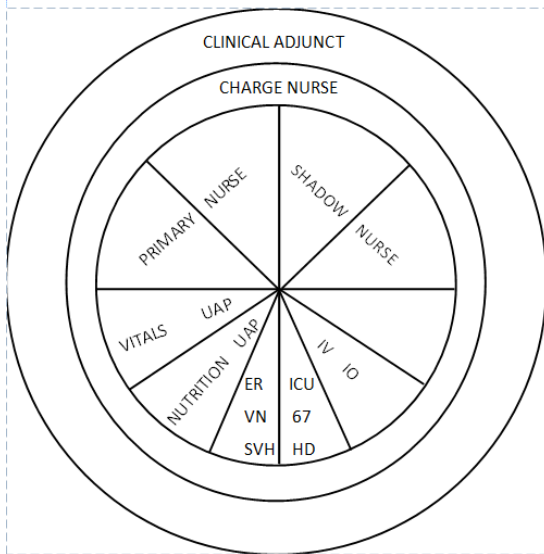
Who is more appropriate assignment

Reason for High Heart Rate Circle

**M**-eds **O**-Oxygen- **S**-stress **T**-trauma **P**-Pain **Thyroid** **D**-dehydration **O**-Orthostatic  
**W**-Withdrawal **I**-Infection **H**-Hemorrhage-**B**leeding

# Clinical Roles

**P2VS Primary Nursing**  
**Meet with Tech On Floor**  
**Do vitals on floor**  
**Complete VS Sheet**  
**SBAR 2 Patients**

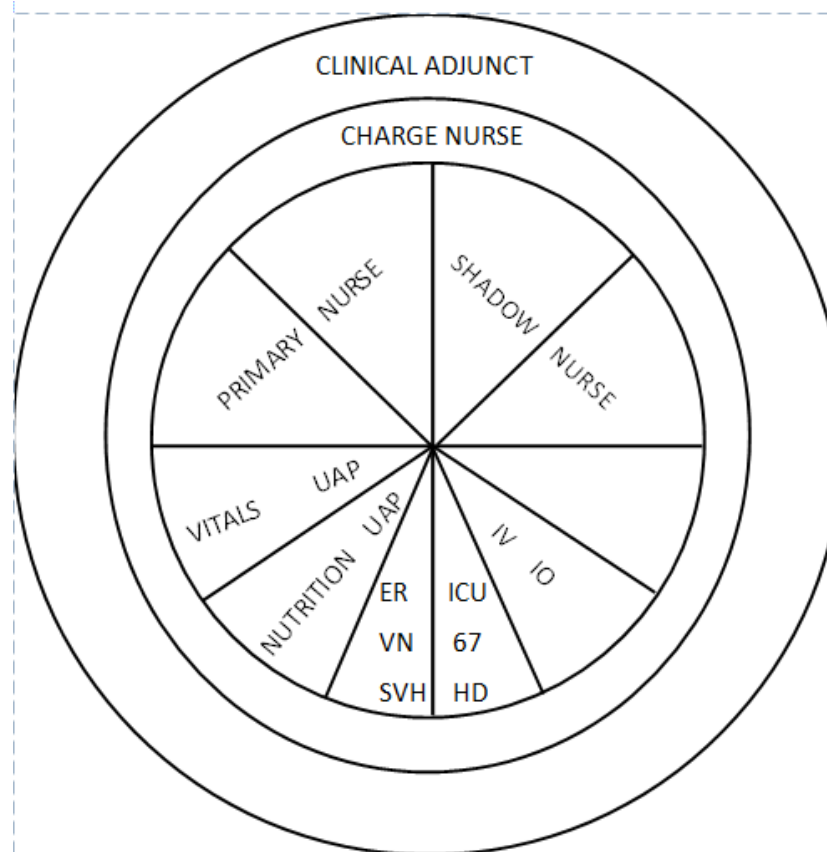


S-SITUATION		NURSINGKAMP				B-BACKGROUND	
<b>I am calling about—</b>		Angina	MI	AFIB	CABG	HTN	ACS
Room/Name _____ Age Gender _____		CHF	COPD-E	COPD-B	Asthma	CKD	DM I II
<b>Code Status—FC DNR DNI HCP MOST</b>		Seizures	Dementia	Other			
Allergies: _____		<b>Patient is Currently—</b> Alert Oriented					
Admit Date _____ Primary _____		Person Place Time Confused changed yes no					
Admit Dx _____		<input type="checkbox"/> Confused—Cooperative Non Cooperative <input type="checkbox"/> Agitated Combative <input type="checkbox"/> Lethargic but conversant able to swallow <input type="checkbox"/> Stuporous not talking clearly possibly not able to swallow <input type="checkbox"/> Comatose— Eyes Closed Not responding to stimulation					
<b>The problem I am calling about is-</b>		<b>Skin is:</b> Warm Dry Pale Mottled Diaphoretic Extremities Cold Hot					
<b>I just assessed the pt personally vitals are-</b>		Pulses _____					
T _____	P _____	R _____	BP _____	MAP _____	O2 _____		
Previous were		Edema _____					
T _____	P _____	R _____	BP _____	MAP _____	O2 _____	0 1 _____	2 3 _____
<b>I am concerned about the</b>		4 P W _____					
BP	>200	<100	30mm difference				
Pulse	>130	< 50	_____				
Resp	< 8	>30	_____				
Temp	<96	> 103	_____				
<b>Pulse Oximetry _____</b>		<b>The Patient is</b> — on Oxygen Not on Oxygen					
		The patient has been on (l/pm) _____ % for _____ hours/minutes O2 Sats _____ Nebs _____					
A-ASSESSMENT MEDS				R-RECOMMENDATIONS			
<b>This is what I think the problem is</b>				<b>I would like to suggest:</b>			
<b>Problem seems to be</b> Cardiac Pulmonary Neuro Infection Meds _____				<input type="checkbox"/> Transfer to ICU <input type="checkbox"/> Come see the patient <input type="checkbox"/> Talk to patient or family about code status <input type="checkbox"/> Ask on-call to see patient now <input type="checkbox"/> Ask for a consultant			
<b>I'm not sure what the problem is but the patient is deteriorating.</b>				<b>Are there any test needed:</b>			
<b>The patient seems unstable and may get worse, we need to do something.</b>				Do you need any test like CXR ABG EKG CBC BMP			
				<b>Would you like any changes?</b>			
				How often would you like vital signs?			
				How long do you expect this problem will last			
				If the patient doesn't get better would you want to be called back and when?			
PH	PaCo2	HCO3	PaO2	Lactic Acid	Troponin		



# Clinical Roles

**P3SH Shadow with RN**  
**Total Care with RN Assignment**  
**NO MEDS**  
**Skills Validated**  
**Reflection Papers**  
**SHAMLDC3**  
**SBAR**



**CARDIOVASCULAR — EKG**      Telemetry    Lead    Rate    **NURSINGKAMP**

SB NS ST Afib Aflutter A-Paced F D V-Paced F D      Edema

AV Paced AICD Block 1 2 3 PAC's PVC's      Pulses      0

**Heart Sounds:** S1 S2 S3 S4 Murmur I II III IV V      1

**Pulses:** R I W T B Doppler      2

**Pulse Trend:** 100—90—80—70—60—50      3

**VTE Prophylaxis:** SCD's Foot Pumps Heparin Lovenox Coumadin Other      4

**PULMONARY — O2@** \_\_\_\_\_ L NC VM PRB NRB CPAP BIPAP FIO2 \_\_\_\_\_ TRACH # \_\_\_\_\_ F NF C U

**Breath Sounds:** Clear Diminished Coarse Wheezes Crackles

**Cough:** Productive Non-Productive—

**Treatments:** Nebs \_\_\_\_\_ ISP \_\_\_\_\_ CPT

**O2 Sats Trend:** 100—95—90 \_\_\_\_\_

**Rate Trend:** 24—20—16 \_\_\_\_\_      **Chest Tube:** R L Pneumo Hemo

**Endocrine/GU** Voiding Anuria Urinal Bedside Commode Bedpan Incontinence Assist 1 2 I

**Bowel Sounds:** Hypo Hyper Active Nausea Vomiting \_\_\_\_\_ Diarrhea \_\_\_\_\_

**NGT:** R L — Green Clear Red \_\_\_\_\_ Amount: \_\_\_\_\_

**G - J TUBE:**      **CKD Dialysis:** M T W T F Sa Su

**Foley: #** F Clear Cloudy Amber Bloody Intake \_\_\_\_\_ Output \_\_\_\_\_

**Skin/Drains/Dressings** CDI      Dressings 1 2 3 4 5

**Weakness:** RUE LUE RLE LLE

**Numbness:** RUE LUE RLE LLE

**Pain:** 1 2 3 4 5 6 7 8 9 10 Location:      JP- HV- WV-

**Med:      Frequency:**

**Trend Pain:** 1 2 3 4 5 6 7 8 9 10

**MEDICATIONS**

**MEDS PRN**

HgA1c BG AC B AC L AC D HS      nursingkamp.com      Consulted

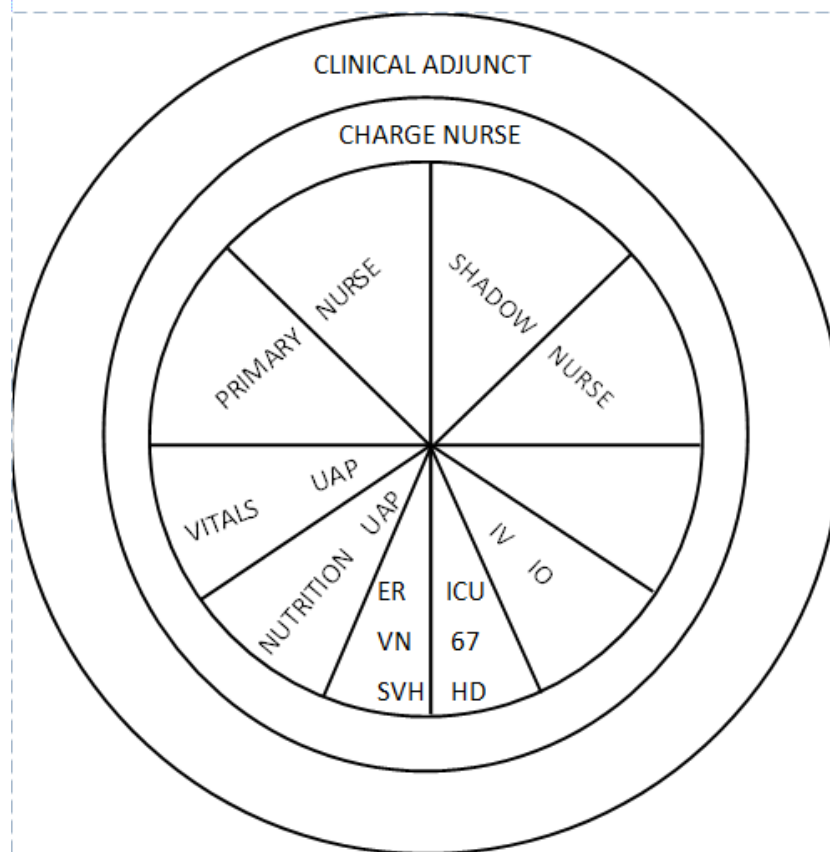
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**New Orders/Pending**

Disposition: Home Home Health NH ALF SCF REHAB      Surgical

# Clinical Roles

**P3SH Shadow with RN**  
**Total Care with RN Assignment**  
**NO MEDS**  
**Skills Validated**  
**Reflection Papers**  
**SHAMLDC3**  
**SBAR**



S-SITUATION		NURSINGKAMP						B-BACKGROUND						
<b>I am calling about—</b>								Angina	MI	AFIB	CABG	HTN	ACS	
Room/Name _____ Age Gender _____								CHF	COPD-E	COPD-B	Asthma	CKD	DM I II	
<b>Code Status—FC DNR DNI HCP MOST</b>								Seizures	Dementia	Other				
Allergies: _____								<b>Patient is Currently—</b> Alert Oriented						
Admit Date _____ Primary _____								Person Place Time Confused changed yes no						
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<b>The problem I am calling about is-</b>								<b>Skin is:</b> Warm Dry Pale Mottled Diaphoretic Extremities Cold Hot						
<b>I just assessed the pt personally vitals are-</b>								Pulses _____						
T	P	R	BP	MAP	O2									
Previous were								Edema					1 2	
T	P	R	BP	MAP	O2	0 1					3 4			
<b>I am concerned about the</b>								2 3					Drains	
BP	>200	<100	30mm difference							4 P W	Foley			
Pulse	>130	< 50												
Resp	< 8	>30												
Temp	<96	> 103												
<b>Pulse Oximetry</b> _____								<b>The Patient is</b> — on Oxygen Not on Oxygen						
								The patient has been on (l/pm) _____ % for _____ hours/minutes O2 Sats _____ Nebs						
A-ASSESSMENT MEDS								R-RECOMMENDATIONS						
<b>This is what I think the problem is</b>								<b>I would like to suggest:</b>						
<b>Problem seems to be</b> Cardiac Pulmonary Neuro Infection Meds _____								<input type="checkbox"/> Transfer to ICU <input type="checkbox"/> Come see the patient <input type="checkbox"/> Talk to patient or family about code status <input type="checkbox"/> Ask on-call to see patient now <input type="checkbox"/> Ask for a consultant						
<b>I'm not sure what the problem is but the patient is deteriorating.</b>								<b>Are there any test needed:</b>						
<b>The patient seems unstable and may get worse, we need to do something.</b>								Do you need any test like CXR ABG EKG CBC BMP						
								<b>Would you like any changes?</b>						
								How often would you like vital signs?						
								How long do you expect this problem will last						
								If the patient doesn't get better would you want to be called back and when?						
PH	PaCo2	HCO3	PaO2	Lactic Acid	Troponin	Na Cl BUN Glu WBC Hgb PRt Ca Mg K CO2 Cr HCT HPT -PG4								



# Clinical Roles

## P4IO Survey Lines and Assessment

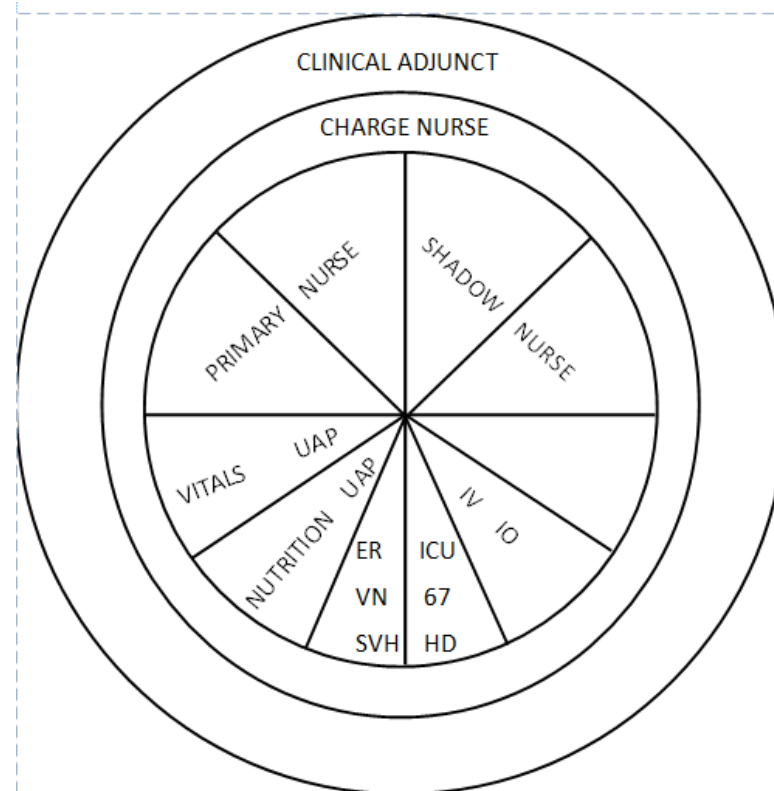
Assess patients lines

Document Initial Survey 2

Make a copy

Give Report to Prof

Identify most acute



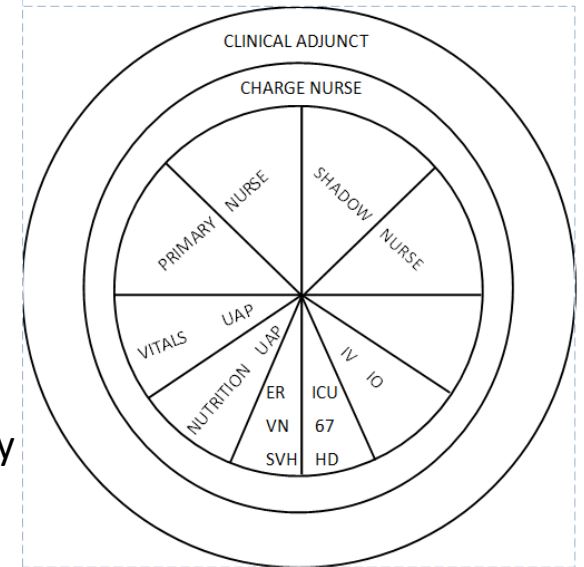
IO Survey 2	
DEVICE	
IV	
TLC	
PICC	
PORT	
FOLEY	
CT	
Wound	
GI	
PEG	
NGT	
DSNG	
ECG	

# Clinical Roles

## CHARGE5 POINT NURSE

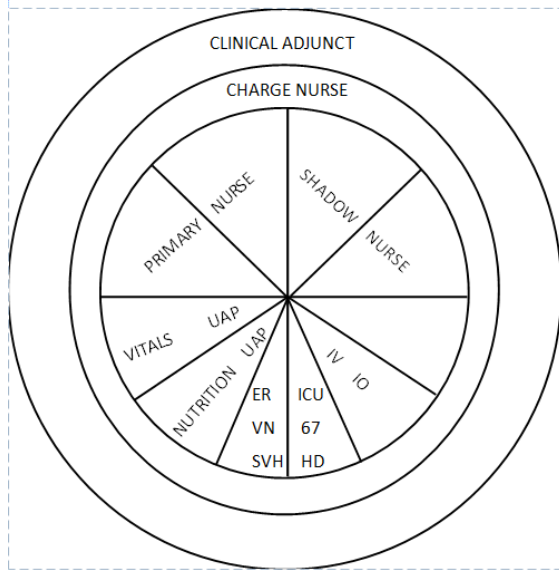
- Meet with charge nurse introduce self identify patients students are unable to have
- Schedule Random assignments for floor nurses (students)
- Fill out Student Floor Assignment and complete sheet of all patients
- Schedule 30 min lunches in two groups A and B
- Ensure brainsheets or assignments are collected and given to Faculty
- Visit ER by (11-12 PM Days 7-8 Evenings) ensure brainsheets are completed deliver to Faculty
- Visit ICU by (1-2 PM Days 8-9 Evenings) ensure brainsheets are completed deliver to faculty
- Visit CVICU by (1-2 PM Days 8-9 Evenings) ensure brainsheets are completed
- Ensure person doing PREP work have completed brainsheets by 1pm Days 9pm Evenings
- Sit with Instructor during reports from students SHAMLDC3

FILL OUT REFLECTION PAPER



# Clinical Roles

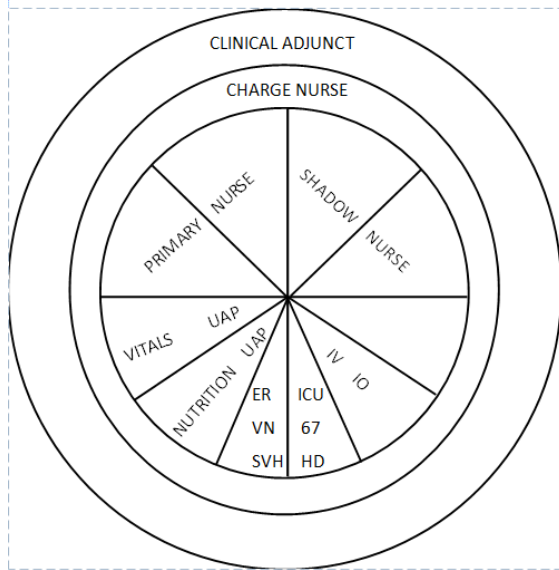
## CHARGE5 POINT



CHARGE TRACKER—CHARGE NURSE =										
Room	Nurse	DX	T	P	R	BP	MAP	O2	IV Meds/Devices	LABS
		C P D						02	NC F TELE	+
		C P D						02	NC F TELE	+
		C P D						02	NC F TELE	+
		C P D						02	NC F TELE	+
		C P D						02	NC F TELE	+
		C P D						02	NC F TELE	+
		C P D						02	NC F TELE	+
		C P D						02	NC F TELE	+
		C P D						02	NC F TELE	+
Lunch A										
Lunch B		ER	ICU	CVICU	2MAC	VN	SVH			

# Clinical Roles

## CHARGE5 POINT



CHARGE TRACKER—CHARGE NURSE =										
Room	Nurse	DX	T	P	R	BP	MAP	O2	IV Meds/Devices	LABS
		C P D						02	NC F TELE	+
		C P D						02	NC F TELE	+
		C P D						02	NC F TELE	+
		C P D						02	NC F TELE	+
		C P D						02	NC F TELE	+
		C P D						02	NC F TELE	+
		C P D						02	NC F TELE	+
		C P D						02	NC F TELE	+
		C P D						02	NC F TELE	+
Lunch A										
Lunch B		ER	ICU	CVICU	2MAC	VN	SVH			

# Clinical Roles

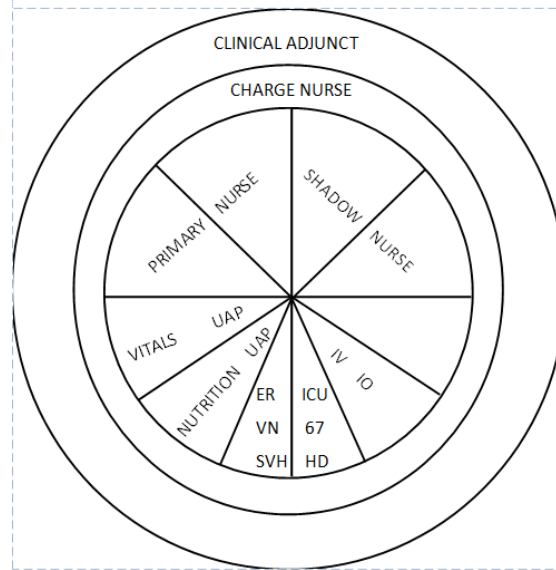
**Mentorship 6&7**

**Nursing 1 & 2**

**Not on Day Coordinate**

**NCLEX Questions**

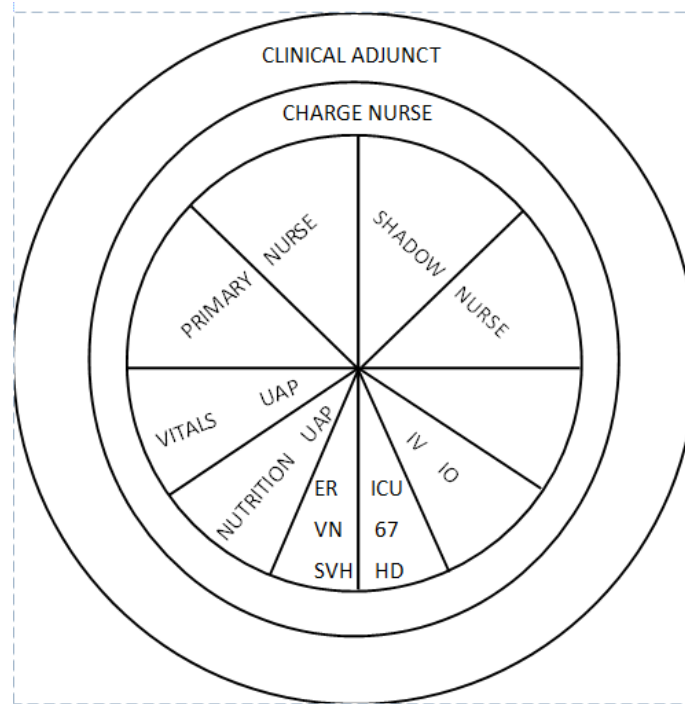
**HEAD TO TOE**





# Clinical Roles

**P9SN Student Nursing**  
**2 Patients up to Break 3-4 Patients**  
**Total Care with RN Assignment Assist**  
**NO MEDS**  
**Skills Validated**  
**Reflection Papers**  
**SHAMLDC3**  
**SBAR**



Room/Name		Age Gender		<b>CARDIOVASCULAR — EKG</b>		Telemetry	Lead	Rate	<b>NURSINGKAMP</b>	
Full Code DNR DNI HCP MOST Advanced Directive		Allergies:		SB NS ST Afib Aflutter A-Paced F D V-Paced F D		AV Paced AICD Block 1 2 3 PAC's PVC's		Pulses		Edema
Admit Date		Primary		Heart Sounds: S1 S2 S3 S4 Murmur I II III IV V		Pulses: R I W T B Doppler		1 2 3 4		1 2 3 4
Admit Dx		Mobility: AD-LIB Assist 1 2 FULL Cane Walker Bedrest		Pulse Trend: 100--90--80--70--60--50		VTE Prophylaxis: SCD's Foot Pumps Heparin Lovenox Coumadin Other				Stick Figure
BR Priv Commode Neuro Checks Restraints Bed Alarms		Precautions- FALL - Elope		LOC		Diet		PULMONARY — O2@ ___ L NC VM PRB NRB CPAP BIPAP FIO2 ___ TRACH # F NF C U		F NF C U
CDIFF MRSA VRE FLU		ADx3		NPO		Strict I&O		Cough: Productive Non-Productive—		Stick Figure
OBS 1:1 Neutropenic		Confused		Daily Weights		Last BM		Treatments: Nebs ___ ISP ___ CPT		Stick Figure
PAST HISTORY		Angina CAD HTN ↑ Lipid PVD ACS		MI Cath CABG Stent CHF R CHF L		Cardiac Other		O2 Sats Trend: 100-----95-----90		Stick Figure
DVT PE COPD-E COPD-B Asthma PNA		Pulmonary—Other		↑ Thyroid ↓		Endocrine/GU Voiding Anuria Urinal Bedside Commode Bedpan Incontinence Assist 1 2 I		Bowel Sounds: Hypo Hyper Active Nausea Vomiting ___ Diarrhea ___		Stick Figure
HD PD CKD DM 1 DM 2		AKI Ulcer Divert Seizure Smoker ETOH		Seizure CA Glaucoma Hepatitis Cataracts Dementia		Other HX		G - J TUBE: CKD Dialysis: M T W T F Sa Su		Stick Figure
CURRENT CONSULTS TEST		XRAY MRI CT ECHO		US CATH		T P R BP MAP O2		Skin/Drains/Dressings CDI		Stick Figure
T P R BP MAP O2		T P R BP MAP O2		T P R BP MAP O2		US		Weakness: RUE LUE RLE LLE		Stick Figure
IV # ___ R L SL DATE:		IVF: NS 0.45 NS D51/2 D5NS LR		Site: AC FA HAND Wrist		Central: IJ TLC PICC Port		Numbness: RUE LUE RLE LLE		Stick Figure
Dialysis G S		Blood TPN Lipids		IV # ___ R L SL DATE:		IVF: NS 0.45 NS D51/2 D5NS LR		Pain: 1 2 3 4 5 6 7 8 9 10 Location:		Stick Figure
Site: AC FA HAND Wrist		Central: IJ TLC PICC Port		Dialysis G S		Blood TPN Lipids		Med: Frequency:		Stick Figure
T P R BP MAP O2		T P R BP MAP O2		T P R BP MAP O2		US		Trend Pain: 1 2 3 4 5 6 7 8 9 10		Stick Figure
MEDICATIONS		MEDS PRN		HgA1c BG AC B AC L AC D HS		nursingkamp.com ©2020		New Orders/Pending		Stick Figure
T P R BP MAP O2		T P R BP MAP O2		T P R BP MAP O2		US		Disposition: Home Home Health NH ALF SCF REHAB		Stick Figure

# OFFSITE ICU/CVICU

## Observation Only

OFFSITE—CCD- Critical Care Unit - CVICU

Survey the Floor Medical Diagnosis


Critical Gtt's


IVF	Class	Action	Admit Diagnosis reason for <u>gtt</u>

# OFFSITE ICU/CVICU 2 Patients & SBAR

Room/Name \_\_\_\_\_ Allergies \_\_\_\_\_  
 Age Gender \_\_\_\_\_  
 HCP \_\_\_\_\_

Admit Date: \_\_\_\_\_ DX \_\_\_\_\_ PCP \_\_\_\_\_

Consults:  C  P  R  ID  PSY  Neuro  Surg  Wound  Ortho  PT  OT  SW

PMHX:  CAD  HTN  PVD  ACS  MI  A-FIB  Aflutter  Cath  CABG x  Stent x  CHF R L  BNP  
 PE  DVT  COPD  Asthma  Emphysema  PNA  COVID  CKD

ESR S M T W T F S  PD  DM 1  DM 2  AKI  Stroke  CA  
 Depression Thyroid ↑ ↓  Seizure  
 Smoker  ETOH SCALE \_\_\_\_\_ SCORE \_\_\_\_\_

Precautions: LOC \_\_\_\_\_ A&O x  1  2  3  Confused  Lethargic

Precautions	LOC	A&O	1	2	3	Confused	Lethargic
<input type="checkbox"/> FALL	TIME						
<input type="checkbox"/> D	TEMP						
<input type="checkbox"/> A	PULSE						
<input type="checkbox"/> S	RESP						
<input type="checkbox"/> C	BP						
<input type="checkbox"/> CDIFF	SPO2						
<input type="checkbox"/> MRSA	PAIN						
<input type="checkbox"/> VRE							
<input type="checkbox"/> OBS							
<input type="checkbox"/> 1:1							
<input type="checkbox"/> Neut							
<input type="checkbox"/> Sitter							

WNL  NCL %  CPAP  BiPap

NEBS  Chest Tube  
 Trach # \_\_\_\_\_  C  U  
 Incentive S@BS

ECG—Lead  NSR  ST  SB  A-fib  A-Flutter  
 RATE  PAC  PVC  AV Block  1  2  3  
 EF %  S1  S2  S3  S4  MURMUR  
 VALVE T P M A

NG  R-  L  PEG  ILIOST  COLOST  
 NPO-  
 TPN  
 DIET \_\_\_\_\_ BM \_\_\_\_\_  
 Foley Output: \_\_\_\_\_ Intake: \_\_\_\_\_

BS BS BS BS A1C

HEMODYNAMICS—Ranges	Lines	GTT's
<input type="checkbox"/> Aline <input type="checkbox"/> Emco <input type="checkbox"/> CRRT	<input type="checkbox"/> TLC R L F IJ	_____ @ _____
<input type="checkbox"/> SWANN <input type="checkbox"/> Impella	<input type="checkbox"/> PICC <input type="checkbox"/> Port A D	_____ @ _____
<input type="checkbox"/> CVP	<input type="checkbox"/> V#	_____ @ _____
<input type="checkbox"/> PAWP	<input type="checkbox"/> IV #	_____ @ _____
<input type="checkbox"/> SVR	<input type="checkbox"/> IV #	_____ @ _____
<input type="checkbox"/> CO	<input type="checkbox"/> IV #	_____ @ _____
<input type="checkbox"/> CI	<input type="checkbox"/> TPN <input type="checkbox"/> LIPIDS	_____ @ _____
Temp _____		
HR _____	To Do/ Orders	07 _____ <input type="checkbox"/>
Systolic _____ <input type="checkbox"/>		19 _____ <input type="checkbox"/>
Diastolic _____ <input type="checkbox"/>		08 _____ <input type="checkbox"/>
MAP _____ <input type="checkbox"/>		20 _____ <input type="checkbox"/>
SpO2 _____ <input type="checkbox"/>		09 _____ <input type="checkbox"/>
		21 _____ <input type="checkbox"/>
		10 _____ <input type="checkbox"/>
		22 _____ <input type="checkbox"/>
		11 _____ <input type="checkbox"/>
		23 _____ <input type="checkbox"/>
		12 _____ <input type="checkbox"/>
		24 _____ <input type="checkbox"/>
		01 _____ <input type="checkbox"/>
		13 _____ <input type="checkbox"/>
		02 _____ <input type="checkbox"/>
		14 _____ <input type="checkbox"/>
		03 _____ <input type="checkbox"/>
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		04 _____ <input type="checkbox"/>
		16 _____ <input type="checkbox"/>
		05 _____ <input type="checkbox"/>
		17 _____ <input type="checkbox"/>
		06 _____ <input type="checkbox"/>
		18 _____ <input type="checkbox"/>
		07 _____ <input type="checkbox"/>
		19 _____ <input type="checkbox"/>
		07 _____ <input type="checkbox"/>

SCHEDULED  
 Cath  US  MRI  
 Stress  Dop  CT  
 CXR  Surg

D-Dimer \_\_\_\_\_  
 Troponin \_\_\_\_\_  
 BNP \_\_\_\_\_  
 Lactic Acid \_\_\_\_\_  
 AST \_\_\_\_\_  
 ALT \_\_\_\_\_  
 BS \_\_\_\_\_  
 BS \_\_\_\_\_  
 BS \_\_\_\_\_  
 BS \_\_\_\_\_  
 A1C \_\_\_\_\_

AS HE VS SK TU LI DR RX ET WO CT RE I/O

Discharge:  Home  Home Health  Rehab  SNF  ALF  Hospice

# OFFSITE ER

RM: \_\_\_\_\_ C/O \_\_\_\_\_ Allergies  NKDA  FC  
Name/Age \_\_\_\_\_  DNR  
 LW

AMB  TRIAGE ESI GCS PREC:    -

Consults  C  P  R  ID  PSY  Neuro  Surg  Wound  Ortho  PT  OT  SW • ADMIT TO:

LOC A & Ox 1 2 3  Confused  Lethargic  Sedated  PERRLA • SAFETY:  Fall  SI  ASP  RESTRAINTS  Sitter

T		<input type="checkbox"/> IV # _____ <input type="checkbox"/> IV # _____ <input type="checkbox"/> PICC <input type="checkbox"/> IP <input type="checkbox"/> TLC	<input type="checkbox"/> EKG-
P	TELE: <input type="checkbox"/>	Trop - + BNP _____ @ _____	<input type="checkbox"/> CXR-
R		_____ @ _____	<input type="checkbox"/> US -
B/P	NC <input type="checkbox"/>	_____ @ _____	<input type="checkbox"/> CT -
02	NEBS: <input type="checkbox"/>	_____ @ _____	<input type="checkbox"/> ECHO -
	PAIN <input type="checkbox"/>		Diagnostics & Pending Notes

Labs:  GI - WNL  PRN's

Foley

INTAKE:

OUTPUT:

Belongings  Meds  Consent


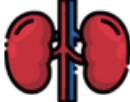
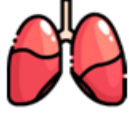
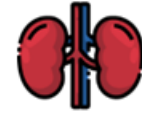
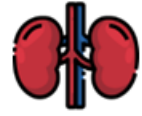






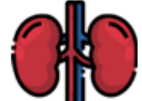


# OFFSITE VN & SVH

# NURSINGKAMP - BMP Basic Metabolic Panel Chem7 Chemistry 7 Level 1

The Basic Metabolic Panel (BMP) is a set of lab tests used to evaluate a patient's electrolyte balance and kidney function. These tests are typically performed daily for inpatients, during acute situations, or before diagnostic procedures or surgeries. It's important to note that lab values can vary between institutions, so always refer to your agency's policy for interpreting results. The NCLEX exam will provide reference ranges for these labs, but it's crucial for nurses to understand the underlying causes of any abnormalities, as well as the appropriate assessments and interventions. Units of measurement (such as mEq/L, mmol/L, etc.) are not emphasized here because the focus is on understanding the reference ranges.




Plasma is 55% of the blood tube indicating the fluid portion of blood. When considering the labs included in the Basic Metabolic Panel (BMP), it's helpful to remember that all of these tests measure components found in the fluid portion of the blood, known as plasma. Therefore, changes in these lab results are often linked to fluid imbalances in the body. Such imbalances can occur due to illness that causes dehydration, the use of diuretics that increase urine output, or any medical procedures that remove fluids from the body.

<p><b>High is Dry!</b></p>   <p><b>Na - Sodium</b> 135-145</p>	<p><b>Respiratory Metabolic?</b></p>   <p><b>Cl - Chloride</b> 95-105</p>	<p><b>Kidney Issues - Diabetic?</b></p>   <p><b>BUN - Blood Urea Nitrogen</b> 8-22</p>	
<p><b>3.5-5.1</b></p>   <p><b>K - Potassium</b> High &amp; Low Acute!</p>	<p><b>22-26</b></p>   <p><b>CO2-Carbon Dioxide</b> Respiratory or Metabolic?</p>	<p><b>0.7-1.4</b></p>   <p><b>Cr- Creatinine</b> Kidney Issues - Diabetic?</p>	 <p><b>GLU - Glucose</b> 70-110 Low Acute Think BS</p>


# NURSINGKAMP BMP Basic Metabolic Panel Chem7 Chemistry 7 = Acute!

The BMP is a collection of labs evaluating the current electrolyte & Kidney functioning of the patient - Drawn inpatient daily or in acute situations

## Sodium High is Dry!

 Sodium Low- "Low Uhh Seizures Coma" Think the fluid is there but in the wrong place! Think 5 D' Diuretics, Drains, DKA, Dehydration, Diet

High or Low Look Somewhere else! Respiratory Metabolic?

BUN LOW CHRONIC-Liver  
BUN High then look at creatinine is it normal? Yes think Dry!   
If Both BUN & Creatinine is high think is it Acute or Chronic? ARF/CRD

High Why DIC? Diabetic 1-2? Infection Corticosteroids?



Na 135-145

Sodium

K 3.5-5.1

Potassium

Cl 95-105

Chloride

CO2 22-26

Carbon Dioxide

BUN 8-22


Blood Urea Nitrogen

CR 0.7-1.4

Creatinine

GLU 60-120

Glucose

 " K's Be high DUMP IT! ACUTE! Now HEART ECG! Potassium Low is Slow Replace! Too Low Respirations, Coma 3 P's of Low Potassium Peeing, Pooping and Puking!

High or Low Look Somewhere else! Respiratory or Metabolic?

Creatinine Low Chronic Creatinine anytime High Stop and Think is it Acute or Chronic?  Acute Renal Failure Chronic Renal Disease

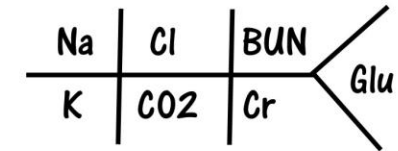
Low UHOHH! Dextrose 50 Juice  Crackers! 20g Carb

This fishbone is generally drawn with the Complete Blood Count CBC.

# ERKAMP BMP Basic Metabolic Panel - Chem7 - Chemistry 7

The BMP is a collection of labs evaluating the current electrolyte & Kidney functioning of the patient more important labs are Potassium K and Sodium- Chloride and CO2 are indicators requiring looking at Respiratory or Metabolic problems- BUN & Creatine Evaluate Kidney related issues whether acute or chronic along with along with glucose.

**Sodium Low is most acute - only raise 1 mEq an hour due to risk for herniation- Always monitor 6 Lit D's causes Drains, Diuretics, Diarrhea, DKA, Dehydration, Diet, & Lithium**



BMP **ER** Fishbone

- Could be life threatening, notify provider >150 ●
- Assess pt, vitals, labs, might do 145-150 ●
- Interventions may notify PCP
- Normal Lab Values 135-145 ●
- Assess pt, vitals, labs, might do 130-135 ●
- Interventions may notify PCP
- Could be life threatening <130 ●

**Na 135-145 Sodium**

**K 3.5-5.1 Potassium**

**Potassium high is an acute finding that should be addressed! Place on Monitor, EKG Notify PCP-May tx with CD-KING HEMO**

**"C D KING Hemo"- Calcium Chloride/ Gluconate- Diuretics Kayexalate, Insulin, Glucose, Hemodialysis**

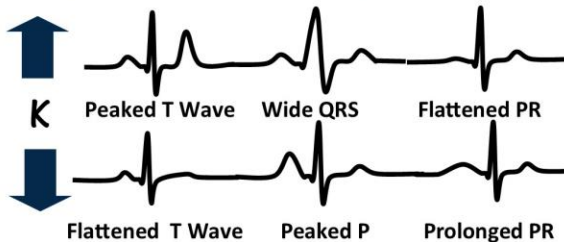
- Could be life threatening, notify provider >5.4 ●
- Assess pt, vitals, labs, might do 5.1-5.4 ●
- interventions may notify Provider 3.5-5.1 ●
- Normal Lab Values 3.0-3.5 ●
- May replace- Stop NG Tubes, Diuretics <3.0 ●

High or Low Look Somewhere else is it a Respiratory or Metabolic problem?

Cl 95-105 Chloride

CO2 22-26 Carbon Dioxide

High or Low Look Somewhere else is it a Respiratory or Metabolic problem?



**BUN LOW CHRONIC-Liver**

**BUN High then look at Creatinine is it normal? If Yes think Dry! If Both BUN & Creatinine is high think is it Acute or Chronic? ARF/CRD**

**BUN 8-22**

**Blood Urea Nitrogen**

**Cr 0.7-1.4 Creatinine**

**Creatinine Low Chronic Condition**

**Creatinine anytime High Stop and Think is it Acute or Chronic?**

**Acute Renal Failure (ARF)**

**Chronic Renal Disease (CKD)**

GLU 70-110

High Why DIC? Diabetic 1-2? Infection Corticosteroids?

High or Low always get a POC fingerstick Assess PT

Low Glucose may treat with G-50-20-30 Conscious? Glucagon 20-30 Carb Unconscious D-50

Low K May Replace Never Bolus Potassium Give Only 10-20 meq hour In Order to Raise 1 mEq/l K3.0-3.5 = needs 100-200 mEq K< 2.9 = needs 200-400 mEq