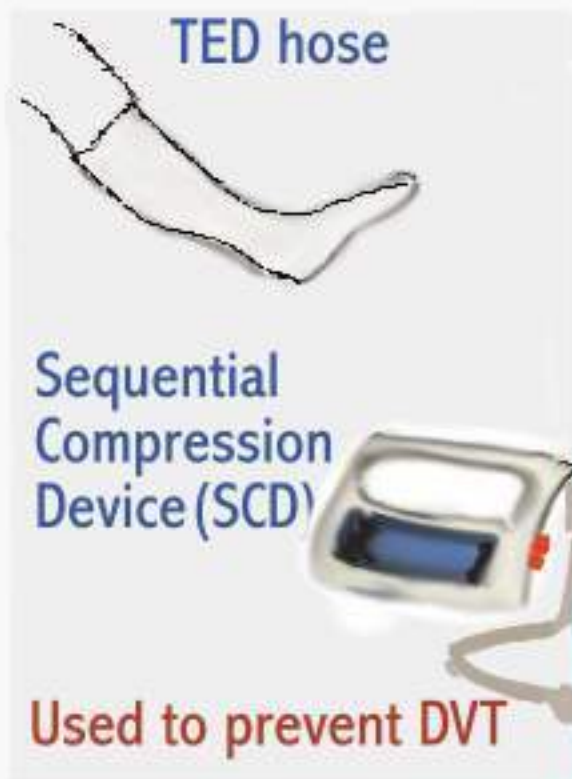




CHAPTER 3

1. DEEP VEIN THROMBOSIS
2. RENAL FAILURE
3. PREECLAMPSIA
4. POST-OP PNEUMONIA
5. POSSIBLE SEPSIS

DVT (DEEP VEIN THROMBOSIS)



Jenna is a 42 year old female admitted to the surgical floor following a laminectomy. She is 5 days post-op and has not been willing to get out of bed and move around. Today, she is complaining of pain in her calf.

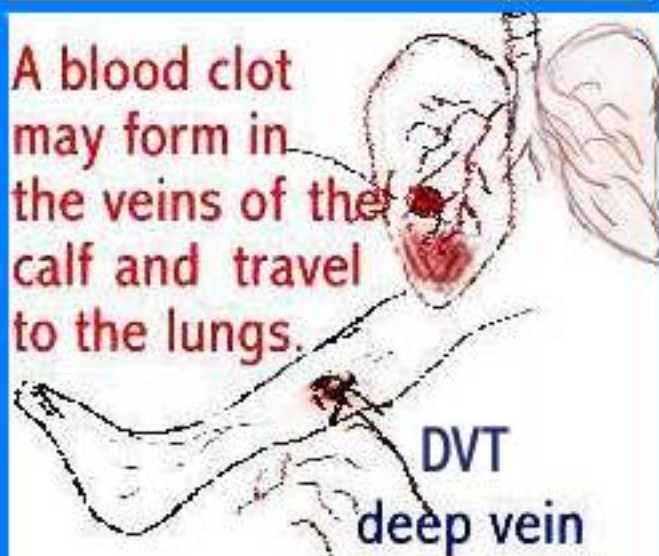
A patient who is confined to bed for any reason is considered to be at risk for DVT. Unlike arteries that have high pressure, veins are naturally sluggish. Lack of movement to the legs, may cause clots to form, especially if a patient has a history of conditions such as Atrial fibrillation.

TED hose, SCDs and encouraging patients to move are methods used to prevent clot formation. The legs and feet are common sites for clot formation. A clot may break off and travel to the lungs, causing pulmonary embolism.



Pulmonary embolism is the result of a clot breaking free from the foot or leg and migrating to the lungs. Other causes include: obesity, fractures, trauma, cardiac problems and plaque build-up in the blood vessels.

A blood clot may form in the veins of the calf and travel to the lungs.



DVT
deep vein
thrombosis

DVT (DEEP VEIN THROMBOSIS)

A blood clot may form in the veins of the calf and travel to the lungs.



HELPFUL HINTS

If you have a patient who has been in bed for a prolonged period of time:

- suspect DVT if the patient complains of heat and pain in the calf. Assess the involved calf and document findings. Check breathing, lung sounds, vital signs and oxygen saturation. Notify MD.

RENAL FAILURE

BLOOD AND URINE SPECIMENS WERE TAKEN AND CHECKED FOR UREA, CREATININE, SODIUM AND POTASSIUM.



URINARY OUTPUT WAS CLOSELY MONITORED



CT SCAN

SWOLLEN FEET AND ANKLES

AND MRI OF ABDOMEN WERE ALSO ORDERED

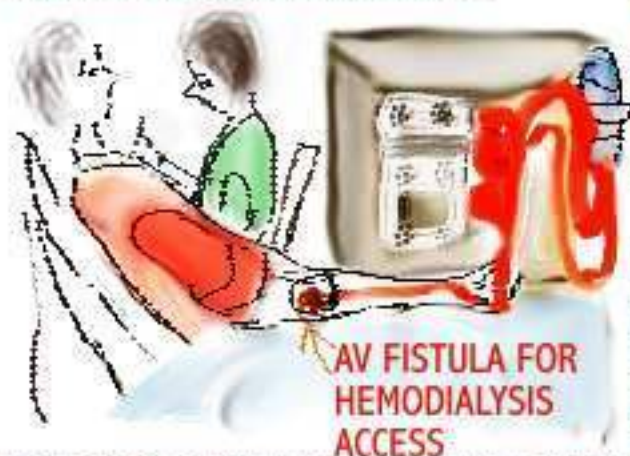
Tim is a 35 year old male who has generally been in good physical health. He was recently treated with antibiotic therapy for acute bronchitis. He later noticed a decrease in urinary output, fatigue and swelling of his feet and ankles. He notified his doctor, who advised him to come into the hospital for further evaluation.

RENAL FAILURE

WHEN THE KIDNEYS ARE UNABLE TO FILTER THE BLOOD, A MACHINE IS USED INSTEAD.



HEMODIALYSIS IS ORDERED BY THE DOCTOR. SPECIAL TRAINED STAFF FOLLOW INSTRUCTIONS ORDERED BY THE DOCTOR. A NURSE CARRIES OUT THE TREATMENT ORDERED AND MONITORS THE PATIENT DURING HEMODIALYSIS.



THE KIDNEYS ARE TWO BEAN-SHAPED ORGANS WHICH LIE IN THE MIDDLE OF THE BACK. THEY FILTER WASTE PRODUCTS FROM THE BLOOD.

WHEN THE KIDNEYS ARE NO LONGER ABLE TO PERFORM THEIR NORMAL FUNCTION, RENAL FAILURE OCCURS. DEPENDING ON THE CAUSE, RENAL FAILURE MAY BE ACUTE OR CHRONIC.

TIM WAS DIAGNOSED WITH ACUTE RENAL FAILURE. HIS LAB RESULTS, DECREASE IN URINARY OUTPUT AND RECENT ANTIBIOTIC THERAPY WERE SOME OF THE FACTORS THAT CONFIRMED HIS DIAGNOSIS.

RENAL FAILURE MAY BE ACUTE OR CHRONIC. CAUSES OF ACUTE RENAL INCLUDE: HYPOVOLEMIA (DECREASE IN BLOOD VOLUME) DUE TO CONDITIONS LIKE DIURETICS OR HEMORRHAGE, DRUGS LIKE ANTIBIOTIC THERAPY OR CONTRAST USED FOR CT-SCANS AND X- RAYS AND TUMORS.

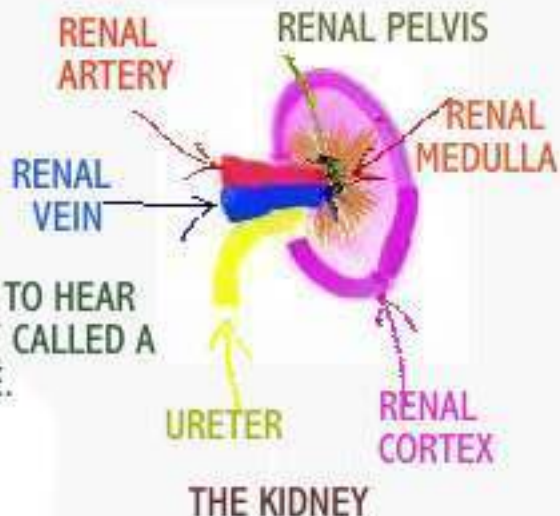
CHRONIC RENAL FAILURE MAY BE CAUSED BY HYPERTENSION, DIABETIC NEPHROPATHY AND HIV CONDITIONS. CHRONIC RENAL FAILURE MAY REQUIRE HEMODIALYSIS ON A REGULAR BASIS OR UNTIL TRANSPLANTION IS POSSIBLE.

RENAL FAILURE

DIETARY
CHANGES SUCH AS LOW SODIUM AND POTASSIUM ARE PART OF THE TREATMENT

A STETHOSCOPE CAN BE USED TO HEAR THE LOUD, PULSATING SOUND (CALLED A BRUIT) AT THE AV FISTULA SITE.

CHECK THE CIRCULATION AV FISTULA



HELPFUL HINTS:

POST HEMODIALYSIS, A PATIENT SHOULD BE CLOSELY MONITORED FOR SYMPTOMS OF HYPOTENSION. THE NEUROLOGICAL STATUS, VITAL SIGNS AND O2 SATS SHOULD BE MONITORED AND DOCUMENTED.

IT IS NOT UNCOMMON FOR PATIENTS WHO HAVE HEMODIALYSIS TO FEEL COLD IMMEDIATELY AFTER TREATMENT. WARM BLANKETS AND KEEPING THE PATIENT COMFORTABLE DURING THAT PERIOD IS HELPFUL.

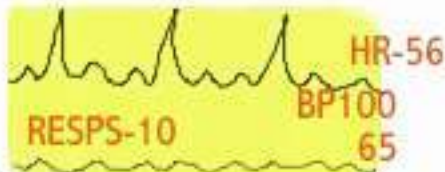
- STRICT I/O, DAILY WEIGHTS, MONITORING OF URINARY OUTPUT IF ANY
- MONITORING AV FISTULA FOR CIRCULATION AND SIGNS OF INFECTION
- CLOSE MONITORING OF NEUROLOGICAL STATUS, VITAL SIGNS AND O2 SATS
- GOOD SKIN CARE TO PREVENT BREAKDOWN

PREECLAMPSIA - HYPOMAGNESIUM

THE NURSE
ASSESSES
CELESTE

Celeste
can you
hear
me?

OXYGEN



IV infusion
with
Magnesium
Sulfate

VITAL SIGNS
SHOW HER HEART
RATE IS SLOW AND
RESPIRATIONS
ARE SHALLOW.

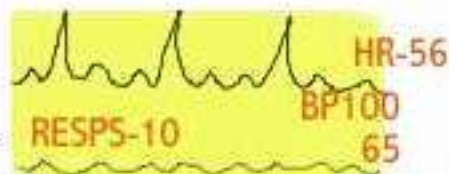
O2 SATS-95%

IV site -redness
no swelling noted

Celeste is a 32 year old female who is pregnant for the first time. She is preeclamptic and is receiving Magnesium via IV infusion. She is lethargic and hard to arouse.

Following assessment, the nurse documents his findings.

PREECLAMPSIA - HYPOMAGNESIUM



Celeste
can you
hear
me?

THE NURSE
NOTIFIES THE
DOCTOR OF
HIS FINDINGS.

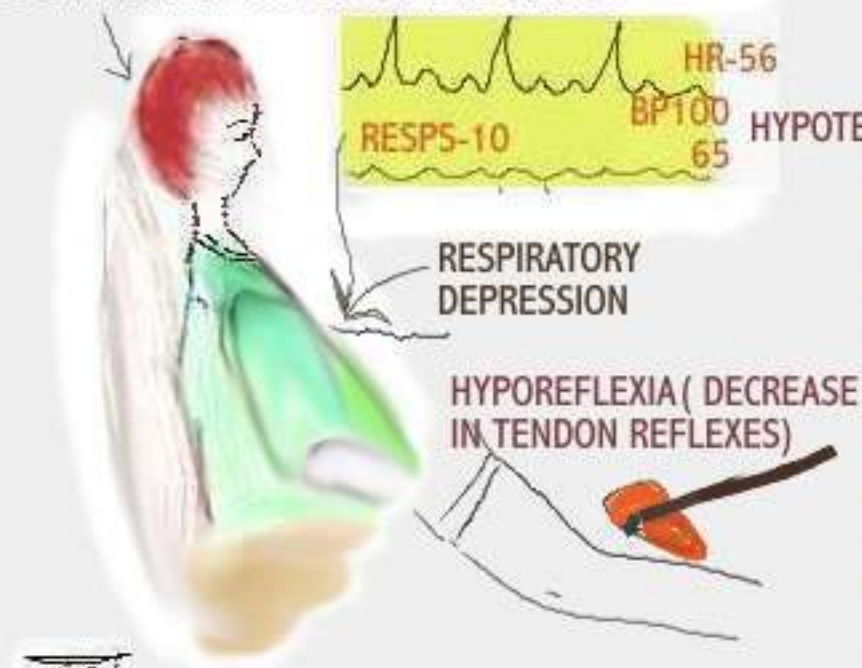
SIDE EFFECTS OF MAGNESIUM INFUSION
INCLUDE:

- LETHARGY, DECREASE IN LEVEL OF CONSCIOUSNESS
- DECREASE IN RESPIRATIONS, HYPOTENSION
- CIRCULATORY COLLAPSE
- MUSCLE WEAKNESS, HEADACHE
- FLUSHING, SWEATING,

Q - WHAT IS PREECLAMPSIA?

A - PREECLAMPSIA IS A CONDITION WHICH IS NOT FULLY UNDERSTOOD. IT OCCURS IN APPROXIMATELY 8% OF PREGNANCIES AND IS MANIFESTED BY SYMPTOMS SUCH AS :- HYPERTENSION, PROTEIN IN THE URINE OF THE PREGNANT MOTHER, HEAD - ACHES, EDEMA, BLURRY VISION AND POSSIBLE SEIZURES.

DECREASE IN LEVEL OF CONSCIOUSNESS



HELPFUL HINTS:

IF YOU HAVE A PATIENT RECEIVING MAGNESIUM' CLOSELY MONITOR:

- LEVEL OF CONSCIOUSNES
- VITAL SIGNS
- O2 SATS
- ABILITY TO MOVE ARMS AND LEGS
- FOLLOW MD ORDERS FOR IV INFUSION RATE AND CHECKING LAB VALUES.
- DOCUMENT ANY CHANGES IN PATIENT STATUS
- NOTIFY MD OF ANY SIGNIFICANT CHANGES.



IV infusion with Magnesium Sulfate

LAB VALUES WILL REFLECT ELEVATED MAGNESIUM LEVELS.



NORMAL RANGE RUNS AROUND 1.25-2.5 MEQ PER LITER

CALCIUM GLUCONATE IS THE ANTIDOTE THAT IS USED FOR MAGNESIUM SULFATE.



POST-OP PNEUMONIA

Pneumonia post-op can be fatal. Patient education is important.



Sara had back surgery 2 days ago. She has been given pain medication as ordered. She denies pain, but refuses to cooperate with turning, coughing and using the incentive spirometer.

The following morning, the nurse is making rounds. She finds Sara shivering and complaining of chills.



POST-OP PNEUMONIA

- ASSESS
- DOCUMENT
- NOTIFY MD
AS SOON AS
POSSIBLE!



SIGNS AND SYMPTOMS

Pneumonia should be prevented at all cost. It delays the healing process in the post-operative period. Fever, chills, generally feeling weak, pleuritic chest pain, decreased breath sounds (especially in the bases) and decrease in O₂ sats are some of the symptoms of pneumonia.

POST-OP PNEUMONIA

- ASSESS
- DOCUMENT
- NOTIFY MD
AS SOON AS
POSSIBLE!



HELPFUL HINTS

If you have a patient in your care who refuses to follow the course of treatment ordered, explain the reason why it is so important to obey the doctor's instructions.

If the patient still refuses, NOTIFY MD. Typically, the doctor can reinforce your instructions.

POSSIBLE SEPSIS



Tim had a hernia repair done about 3 days ago. He was doing well and was discharged home. This morning he woke up with severe abdominal pain, as well as heat and tenderness at the surgical site. He notified his doctor, who advised him to go to the ER.

POSSIBLE SEPSIS



The nurse does an initial assessment and documents her findings. Temp=101F, Pulse=110, Resps=24, O2 sats= 97%, BP134/68.



BLOOD DRAWN FOR WBCS, ABGS, ELECTROLYTES AND PT/PTT

ABDOMEN WAS FOUND TO BE TENDER

CULTURE DONE AT WOUND SITE

The doctor does an exam and orders tests .



POSSIBLE SEPSIS



CAUSES OF SEPSIS INCLUDE ABDOMINAL SURGERY, LUNG OR URINARY INFECTION AND TRAUMA.

TREATMENT INCLUDES: ANTIBIOTIC THERAPY, ANTI-PYRETICS FOR FEVER, DOPAMINE FOR HYPOTENSION

AN OVERVIEW OF SEPSIS

SEPSIS MAY OCCUR WHEN BACTERIA INVADES THE BODY AND SETS OFF AN INFLAMMATORY RESPONSE. THIS MAY OCCUR INSIDE OR OUTSIDE OF A HEALTH CARE FACILITY. SEPSIS CARRIES A HIGH MORTALITY RATE AND REQUIRES IMMEDIATE TREATMENT.

THERE ARE DIFFERENT ORGANISMS THAT MAY CAUSE SEPSIS. HOWEVER, THE MOST COMMON IS GRAM-NEGATIVE BACTERIA.

SIGNS AND SYMPTOMS :

SEPSIS HAS A WARM AND A COLD PHASE. WARM PHASE(EARLY SEPSIS):

- ALTERED MENTAL STATUS
- HIGH FEVER, TACHYCARDIA, FLUSHING
- INCREASED REPIRATIONS
- ELEVATED WBCS, CLOUDY URINE

COLD PHASE (LATE SEPSIS)

- DECREASED MENTAL STATUS
- HYPOTENSION, DECREASED OR NO URINARY OUTPUT
- COOL CLAMMY SKIN, DECREASED RESPIRATIONS