TEMPERATURE, PULSE, RESPIRATIONS

Abbreviated: TPR

TEMPERATURE

The measurement of core body heat



• Oral: By mouth

• Rectally: By rectum

• Axillary: Under the arm in the armpit

• Aural/Tympanic: In the ear

• Temporal: Temporal artery in the forehead

TYPES OF THERMOMETERS

• Digital Electronic: To be used for oral, rectal, and axillary

 Thermoscan - Digital: To be used for tympanic

 Mercury or glass: To be used for oral, rectal, and axillary

NORMS

• Orally: 97.6 - 99.6 degrees Fahrenheit

• Rectally: 99.6 - 100.6 degrees Fahrenheit

 Tympanic - manufacturers say to measure as for rectal

• Axillary: 96.6 - 98.6 degrees Fahrenheit

WHAT THERMOMETER SHOULD BE USED?

• Tympanic: Special device with plastic covers.

• Electronic: All routes. Probes that are red in color for rectal temperatures; blue in color for oral and axillary.

• Mercury: All routes. Red ends are rectal; blue ends oral and axillary.

DURATION FOR TAKING TEMPERATURES

- Tympanic: As long as it takes to push a button
- Electronic: Until the thermometer beeps
- Mercury Oral: Three minutes
- Mercury Rectal: Three minutes
- Mercury Axillary: Ten minutes

BE CAREFUL ON RECTAL AND AXILLARY TEMPS

 Always hold the thermometer in place while measuring both temperatures

 Always use lubricant with rectal temperatures

Always remove clothing around axilla

READING THE THERMOMETER

- Mercury Fahrenheit thermometers are read by degree and 0.2 of a degree
- Long lines indicate degrees
- Short lines indicate 0.2 of a degree
- Four short lines between each long line (0.2, 0.4, 0.6, 0.8)

PULSE

The wave of blood created by the heart pumping, that travels along the arteries.

FIND WHERE TO PULSES

 At points where the artery is between finger tips and a bony area

Called pulse points

• Felt with 2-3 fingers, but never the thumb

PULSE POINTS AND THEIR LOCATIONS

Temporal

Radial

Carotid

Femoral

Apical

Popliteal

Brachial

Dorsal Pedalis

HOW TO MEASURE?

Measured in beats per minute

Count the waves for 60 seconds

 Or, count the waves for 30 seconds multiply by 2

NORMS

• Pulse norms are 60 - 100 beats per minute

• Pulses between 90 - 100 are in a gray area high normal

• Faster than 100 - tachycardia

Slower than 60 - bradycardia

QUALITY OF PULSE

• Rhythm: regular or irregular

• Rate: Within the normal limits

Strength: Strong, bounding, thready

WHAT AFFECTS PULSE RATES AND QUALITY

Body Temperature

Emotions

Activity Level

Health of the Heart

RESPIRATION

The mechanical act of breathing in air (inspiration) and expelling air (expiration) from the body

RESPIRATION

- Measured in breaths per minute
- Normal range is 12 24 breaths per minute
- Greater than 24 is tachypnea
- Less than 12 is bradypnea
- Watch for rate, depth, quality of breath, and difficulty in breathing



- If using a mercury thermometer, measure the pulse and respiration while waiting for the temperature
- If using another method of measuring the temperature, complete the temperature then measure the pulse and respiration
- Keep you fingers on the pulse while measuring the respiration

CHARTING

 Chart in order temperature - pulse respiration.

Do not write T =, etc.

• Write (Ax) after axillary temperatures

• Write (R) after rectal temperatures

ABBREVIATIONS

- SOB Short of breath
- TPR Temperature, pulse, and respiration
 Within normal limits
- P.O. By mouth
- BID -Twice a day
- TID -Three times a day

- QID Four times a day
- QS Every shift
- QD Every day
- PRN As needed
- Ad Lib At liberty
- B/P Blood Pressure
- VS Vital Signs

ABBREVIATIONS

- SOB
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- WNL
- PO
- BID
- TID

- QID
- **QS**
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- Eupnea Normal breathing
- Orthopnea Sitting upright to breath more easily
- Apnea No breath
- Hyperpnea Fast, deep breathing
- Tachypnea Fast, shallow breathing

- Bradypnea Slow breathing
- Dyspnea Painful or difficult breathing
- Tachycardia Pulse rate in excess of 100 bpm
- Bradycardia pulse rate less than 60 bpm

Eupnea

Bradypnea

Orthopnea

Dyspnea

Apnea

Tachycardia

Hyperpnea

Bradycardia

Tachypnea

Normal Breathing
Slow breathing

Sitting upright to breath more easily Painful or difficult breathing

Fast, deep breathing

 Pulse rate in excess of 100 beats per minute

Fast, shallow breathing

Pulse rate less that 60 beats per minute

 Bounding pulse excessively strong pulse • Thready pulse - Pulse rate difficult to palpate because the heart is not beating hard enough to produce a strong wave of blood. Feels as though there is a piece of thread running under the fingertips.

Bounding pulse

• Thready pulse

Excessively strong pulse

 Pulse difficult to palpate because heart not beating heard enough