Safe medication administration



Sleep - state of rest accompanied by altered consciousness and relative inactivity. 3. 2 systems that work together in the brainstem that control cyclic nature of sleep - Reticular Activating system and Bulbar Synchronizing Region. 4. RASA extends from medulla enters into the hypothalamus, where facilitates reflex and voluntary movements as well as cortical activities related to state of alertness. 5.

RASA Is activated when wakefulness occurs with stimuli from he cerebral cortex and from periphery sensory organs and cells. For ex: an alarm clock awakens us from sleep to a state of consciousness, in which we realize that we must prepare for the day. Sensation such as pain, pressure, and noise produce wakefulness by means of peripheral organs and cells. 6. Hypothalamus - controls involuntary activities of the body such as sleepwake cycle. Injury to hypothalamus can cause for abnormally long periods of sleep. 7. Circadian Rhythms - is rhythmic biologic clocks that exist In people, plants, animals. . Some cycles are monthly - women's periods. 9. Circadian Rhythms - complete full cycle of 24 hours. 10. Circadian synchronization exists when an individual's sleep-wake patterns follow the inner biologic clock. When physiologic and psychological rhythms are high or most active, the person is awake; when these rhythms are low, the person is asleep. 11. Although light and dark appear to be powerful regulators of the sleep-wake circadian rhythm, they do not exert primary control. 12. There are 2 major stages of sleep: Non-rapid eye movement (MERE) sleep and Rapid eye movement (ERM) sleep.

MERE sleep (75% of total sleep) - have 4 stages. Stage 1 and 2 and 50% of sleep, and its light sleep). During these stages person can wake up easily. *

Stage 3 and 4 - 10% and 10% of total sleep (deep sleep or delta sleep or slow-wave sleep) * The arousal threshold (intensity of stimulus required to wake up) Is highest at stage 4 MERE. MERE - all vital signs decreased. SO: MERE Stage I: the person is in a between wakefulness and sleep. Person is relaxed, but can be aroused easily. Involuntary muscle Jerking can occur and wake the person. Its only 5%. Stage II: the person fall asleep.

Person can wake-up easily. Its 50-55%. Stage III: depth of sleep Increases. Kind of difficult to wake-up. Its 10%. Stage IV: the person reaches the greatest depth of sleep, which is called Delta sleep. Its 10%. 13. ERM sleep -DIFFICULT TO WAKE UP the person than MERE. * 20-25% of person's nightly sleep time. People who wake during ERM sleep can remember dreams. * During ERM sleep - all vital signs increase, but muscle tone and deep tendon reflexes are depressed. * ERM sleep - Is essential to mental and emotional equilibrium, which play a role In learning, memory, and adaptation. Person who Is After STAGE IV sleep, person returns to the STAGE III, then STAGE II, then ERM, then STAGE II. ERM sleep: eyes dart back and forth quickly. Increased Vital signs. Large muscle immobility resembled paralysis. ERM enters from stage II of MERE sleep, then reenters MERE sleep at stage II; arousal from sleep difficult. Its 20-25% of sleep. 14. There are 4-5 sleep cycles during night, and last about 90-100 minutes each cycle. 15. " Sleep Architecture" - structure and pattern of sleep. 16. Cycle become longer in the morning. 17.

More deep sleep occurs in the delta stage (V) in the 1st half of the night. 18. Recommended adult sleep 7-9 hrs. 19. Older adults - need more time to fall asleep and wake up earlier, and many of hem take a nap during the day.

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Many older adults have enlarged prostate gland, which causes then to wake during night to go to the bathroom. 20. Children sleep less than 12 hours during are likely to be overweight. 21. Physical activity increase both MERE and ERM sleep. 22. Moderate exercise is a healthy way to promote sleep, but exercise that occur within a 2 hour interval before normal bedtime can hinder sleep.

Exercise from normal work activities contribute to normal restful sleep, whereas excessive or exhaustion can decrease the quality of sleep. 23. Small protein-containing snack before bedtime is recommended to patients tit insomnia. Protein may increase alertness and concentration. Carbohydrate - increase serotonin level, which promotes calmness and relaxation.

Therefore, protein and carbohydrate-containing snack may be effective. 24.

Large quantities of alcohol may affect ERM and Delta sleep MERE (V). Alcohol may be used with 6 hrs before sleep. 25.

Smokers have difficult time to fall asleep. Smokers are light sleepers. They can easily wake up. Patients that stop smoking often have daytime sleepiness and more restlessness at night. 26. Sleeping at a strange environment influence both ERM and MERE sleep. People who live in the noisy areas, may have difficult time to fall asleep when they sleep in the quite area. 27. Psychological stress may affect the person in 2 ways: (1) the person experiencing stress may find it difficult to obtain the amount of sleep he/she needs; (2) ERM sleep decreases in amount, may lead to anxiety and stress.

Sleep Disorders: Most common sleep disorders: Dysphasia - insomnia or excessive sleepiness. Pyromania - walking behavior during sleep. Insomnia - difficult falling asleep, intermittent sleep, early awakening from sleep (menopause, ; 60, history of depression). Sleep hygiene - nonparametric commendations that help an individual get a better night's sleep. Hypersonic - excessive sleep, mostly during the day. People with this disorder do not feel speech and thinking processes. (Car accidents, sleep pane, drugs, alcohol, head injury, obesity, depression, medications).

Narcolepsy - uncontrollable desire to sleep. A person can literally fall asleep standing up, while driving, in the middle of conversation, while swimming. People find it difficult to wake up, sleep fewer hours than others, sleep restlessly. It considered neurological disorder; life-treating. Sleep Pane - person experiences the absence of breathing (pane) or diminished breathing efforts (hyphened) during sleep between snoring intervals. Breathing may cease for 10-20 sec., even as long as 2 min.

During long periods of pane, oxygen level in the blood drops, pulse is irregular, BP increases. Many people may experience sleep pane without symptoms. Sleep Pane occurs mostly in middle aged men (MY*Libel) (obese, with short thick neck). Sleep Pane can result from heart failure. Obstructive Sleep Pane - results when airway is occluded b/c of the collapse of the hypnotherapy or from enlarged tonsils, adenoids, deviated nasal septum, thyroid enlargement. Treatment - removing tonsils or Continuous Oral Positive Airway Pressure (CPA).

Many patients discontinue use of CPA b/c of claustrophobia, discomfort exhaling air inflow, dryness, skin irritation. Sleep deprivation - decrease in the amount, consistency, or quality of sleep. It may result from decreased ERM or MERE. Strange environment can contribute to sleep deprivation. It can be a result of disorder or it is involuntary sleep curtailment. Pyromania - walking behavior that appears during ERM or MERE stages of sleep.

Examples: Somnambulism (sleepwalking), sleepwalking, screaming, racism (grinding teeth), Enuresis (urinating during sleep).

Usually seen in children. ERM sleep is more common during morning naps.

Try to awake the patient during ERM sleep, when rapid eye movement can be observed. MERE sleep is common during afternoon naps. Important!

Because s patient's need for sleep is so important, examine priorities for nursing care. For example, checking vital signs or nursing procedures for the patient is more important that the patient's sleep. By using the same bedroom for only sleep and sexual activity, the mind begins to associate this room with sleep. In elderly tenants - stage I is increased.

Slight increase in Temperature in the late afternoon is a result of Normal Circadian Rhythm. MEG - muscle EGG - Abram EGO-eye EGG - cardiac The amount of ERM decreases with age. A sleep diary includes activities during the day b/c they have an effect of sleep, is usually kept for 14 days, and is more helpful if objective comments from a bed partner are included. Chronic Insomnia is the most common reason people visit a sleep disorder clinic. ERM deprivation - causes psychosis. Sensitivity to pain increases, mental alertness decreases, dreaming is absent.