Polysomnography & Sleep Medicine Brain Dump

1	Why is compliance a problem w/ CPAP?	skin irritation, nasal dryness, air leaks, uncomfortable masks
2	Why does eye movement toward an electrode cause a downward deflection?	PSGs are set so that negative voltage causes an upward deflection. When eyes move toward an electrode, positive voltage is recorded thus producing a downward deflection.
3	Why does CPAP help CSB? Three reasons (in theory).	Improve Lung Volumes, increases O2 stores (decreases desat), and slightly increase pCO2.
4	Why does altitude insomnia occur	Due to hypoxia and hypocapnia - decrease barometric pressure, increase risk for alkalosis, cause HAI Resolve in a few days
5	Why do CO2 AND O2 levels decrease during sleep?	-Metabolism slows at sleep onset -Ventilation is proportional to metabolism
6	Why do BP and HR fluctuate during REM?	Because of phasic vagal inhibition and sympathetic activation
7	Why can severe hypoxemia and hypercapnia occur during REM after CPAP initiation?	REM rebound and high REM density may occur after CPAP initiation. Obese and/or baseline hypercapnic pts are predisposed. Supplemental O2 may be required for several weeks before improvement as REM rebound decreases.
8	Why are patients with down syndrome prone to sleep apnea?	Because they have recessed mandibles and large, thick tongues.

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9	Why are antihistamines, alcohol not work for insomnia	Antihistamine - quick tolerance, stop working after one week, rapid tolerance Alcohol - problem with sleep arousal, inhibit rem sleep, worsening of OSA
10	Why and how to avoid injuring the patient:	Avoid causing a break in the skin, which increases risk of infections. Remove electrodes and sensors carefully. Don't over abrade
11	Who wrote the 1st paper describing REM sleep?	Eugene Aserinsky and Nathaniel Kleitman
12	Who was first to describe the sleep cycle of NREM stages?	William Dement and Nathaniel Kleitman
13	Who standardized the recording of sleep based on the eeg?	Allen Rechtschaffen and Anthony Kale. in 1968. (R and K manual)
14	Who provides guidance if pt has taken medication during study and unclear if safe for pt to leave after sleep	Supervisor
15	Who is the father of sleep medicine?	William Dement
16	Who is responsible for reviewing raw data that tech prepares for scoring.	Another tech- scoring tech. Doctor reviews, interprets and sends completed report to ordering MD.
17	Who discovered rem sleep and in what year?	Dr. Klietman in 1954

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18	Who developed the class system for brain wave activity?	Alfred Lee Loomis
19	Who confirms billing paperwork and consent forms are complete	Secretary
20	Who authored the (2007) scoring manual?	AASM
21	Who are more commonly found to have central sleep apnea	Elderly Male HF - common - secondary cause CVA - acute, does not matter location
22	Which types of insomnia are BZDs most effective for?	Transient and Short-Term
23	Which type of montage is recommended in order to maximize the voltages recorded during a PSG?	Referential montage using contra-lateral ear references
24	Which type of amplifier can be used for airflow and effort channels?	either AC or DC
25	Which system do many drugs that keep us awake or make us sleepy primarily have an effect on?	Reticular activating system (RAS)
26	Which stages of sleep are restorative?	slow waves: stages N3

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27	Which sleep disorder is associated with the greatest amount of day time somnolence?	NARCOLEPSY
28	Which seizures occur more frequently or only at night?	frontal (seen in eye leads) and temporal (seen in mastoid leads) epilepsy
29	Which of the amphetamines has the shortest half life?	Methylphenidate (must be dosed several times a day)
30	Which gender is more likely to be affected by insomnia	Women!
31	Which frequency filter settings are the most appropriate for an EOG channel?	0.3Hz- 35Hz
32	Which frequency filter setting is most appropriate for and EEG channel?	0.3Hz- 35Hz
33	Which frequencies do DC amplifiers process?	Relatively constant or slowly fluctuating voltages
34	Which frequencies do AC amplifiers process?	Relatively fast signal frequencies (EEG)
35	Which EKG waveform represents ventricular depolarization?	QRS complex occurs when the ventricles contract or depolarize.
36	Which disorder is common in blind persons?	Non-24 hour sleep wake disorder. Progressive delays in sleep and wake time.

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37	Which direction do the dendrites carry information?	Towards the cell body
38	Which direction do the axons carry information?	Away from the cell body
39	Which condition can result in a moderately reduced nocturnal REM latency (<60min)?	Depression
40	Which class of medications may cause both slow and rapid eye movements in NREM sleep?	SSRI's, and less commonly, TCA's
41	Which class of drugs is known to aggravate Periodic Limb Movements of Sleep	Tricyclic Anti-depressants
42	Which can you use meripex and is not painful but can disturb sleep****`	RLS Periodic limb movement disorder
43	Which BZDs should be avoided in elderly and why?	Long acting agents because of the risk of falls
44	Which BZDs are the longest acting?	Flurazepam and Quazepam
45	Which body position demonstrates the most severe sleep apnea?	SUPINE

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46	Which body position and stage are best for determining optimal CPAP pressure titration?	SUPINE, DURING REM
47	Which behaviors are associated with using appropriate body language when communicating with pt	Eye contact, setting straight in chair, smiling.
48	Which antidepressant type most effects REM?	MAO's
49	Which anatomical landmarks are used to complete the measurements for the vertex placements	NASION AND INION
50	Which age groups are most affected by insomnia?	Young adults and middle aged more than kids or adolescents
51	Where is the tip of the mastoid process?	At the bottom of the mastoid process?
52	Where is the thalamus located?	Near the center of the brain
53	Where is the SCN nucleus located?	In the hypothalamus
54	Where is the reticular formation located?	Top tip of brain stem, at top of mid brain
55	Where is the pons located?	Brain stem

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56	Where is the pineal gland located?	Behind the brain stem, under the hypothalamus
57	Where is the oropharynx?	Near the mouth
58	Where is the nasopharynx?	Above the nose
59	Where is the most common site for airway collapse	retro-palatal region
60	Where is the Masseter muscle?	Muscle running from eye forward to jaw; one of the muscles used for chewing
61	Where is the laryngopharynx?	Near the voicebox
62	Where is the cerebral cortex (cerebrum) located?	Rest of brain besides the cerebellum
63	Where is the cerebellum located?	Lower back region of brain
64	Where is our internal clock located?	The Suprachiasmatic nucleus (SCN)
65	Where is melatonin released?	Pineal gland
66	Where does oxygen and carbon dioxide diffusion occur during gas exchange?	Alveoli
67	Where do you place the reference electrodes?	At the top of the mastoid process, behind the ear, on the bony area.
68	Where do you mark OZ?	10% up from inion

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69	Where do you mark FZ?	20% up from FPZ or 30% up from the nasion
70	Where do you mark FPZ?	10% up from the nasion
71	Where do you mark CZ?	50% of measurement from nasion to inion AND L & R preauricular
72	Where do spindles come from?	Reticular Thalmic Nuclei
73	Where do retrograde tracers transmit?	Afferent (from receptors towards the CNS)
74	Where do Leg EMG electrodes go?	on the belly of the anterior tibialis muscle
75	Where do Anterograde tracers transmit?	Efferent. (From the CNS to the muscles or glands)
76	Where are the palantine tonsils held?	The oropharynx
77	Where are the most common locations where snoring is generated?	posterior edge of the soft palate, uvula, tonsil pillars
78	Where are the electrodes to be placed for a Chin EMG?	-1 cm below inferior edge of mandible -2 cm below inferior edge of mandible and 2 cm right -2 cm below inferior edge of mandible and 2 cm left
79	Where are serotonin neurons located? What does it do?	Raphe Nuclei (pons) facilitates continuous movement. Suppresses the effects of extraneous information

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80	Where are respiratory centers located?	pons and medulla
81	Where are REM ON CELLS located?	Pedunculopontine nucleus
82	Where are REM OFF CELLS located?	Raphe
83	Where are pyramidal cells located?	In the 3rd and 4th layer of the cerebral cortex
84	Where are Norepinephrine neurons located?	Locus Coeruleus
85	Where are hypocretin neurons found?	Lateral hypothalamus
86	Where are alpha waves normally found?	Closed eyed, drowsy, yet awake. Alpha may also randomly appear during various sleep stages.
87	Where are acetylcholine neurons found? What does it do?	Dorsal pons, basal fore brain, medial septum. Increases cortical arousal
88	When was the Sleep Onset REM period first established?	1960
89	When was the Rechtschaffen and Kales "Manual for Standardized Terms, Tech, and Scoring System for Sleep Stages for Human Subjects" created?	1968, 1st manual for sleep and a research tool

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90	When was the first sleep fellowship training established?	1989
91	When was the first board exam for sleep medicine and what was it called?	1978, Diplomat, American Board of Sleep Medicine
92	When was the Association for PSG Techs (APT) founded?	1978
93	When was the "AASM Manual for Scoring Sleep" created?	2007
94	When was Rapid Eye Movement (REM) Sleep Established?	1953
95	When was polysomnography first used?	1974
96	When was NREM sleep established	1937
97	When was narcolepsy first described?	1877
98	When was hypocretin in humans first described?	2000
99	When was hypocretin in animals first described?	1998
100	When was canine narcolepsy first described?	1973