EFFECTS OF HOSPITALIZATION ON SLEEP

1. 1752 1st hospital opened in USA (20 beds)
1992 in USA have 6,539 registered hospitals
It is likely that hospitalized patients already have higher rates of sleep
  disorders than does general population…but could the hospital
  environment make sleep disorders even worse?

2. **Sleep Quantity/Quality in a Hospital**
   Studies done in a **Intensive Care Unit** (ICU)
   Following surgery, both **quantity & quality of sleep is very poor**
     Quantity: mean average is 2 hours TST/first 48 hours in ICU
     Quality: reduced deep NREM (stage 3&4) sleep, even to zero
       usually zero REM/first 48 hours
       increased sleep disruption, arousals, sleep stage changes
   Nursing staff seriously over-estimates TST of pts in ICU
   **Multiple causes** of poor sleep
   
   **Duration** of sleep disruptions
   
   **REM rebound** phenomenon
   
   Note: peak rate of post-surgical complications occur 2nd-5th day…
   
   Note: high incidence of Obstructive Sleep Apnea (OSA)

**Non-ICU Studies**
   Also see poor quantity/quantity of sleep, although generally not as
   bad as that seen in ICU
   
   Use of **hypnotics**
3. **Sources of Sleep Disruption in Hospital**

   a. **Environmental Sources**
      - Staff routine
      - Light levels
      - Noise levels

   b. **Biological Rhythm Disturbances**

   c. **Pharmacology**
      - Anesthesia
      - Hypnotic Medication

4. **Effects of Sleep Deprivation** on hospitalized patients

5. “**I.C.U. Psychosis**”