## Table S1: Subjective Sleep Quality pre and post sedative-hypnotic therapy

| Subjective Sleep Quality | Pre-treatment | Post-treatment |
|--------------------------|---------------|----------------|
| Very Good                | 0.5% (n=1)    | 43.5% (n=81)   |
| Fairly Good              | 40.3% (n=75)  | 50.5% (n=94)   |
| Fairly Bad               | 43.5% (n=81)  | 5.9% (n=11)    |
| Very Bad                 | 15.6% (n=29)  | --             |

## Table S2: Sleep variables among study patients: pre and post sedative-hypnotic therapy

| Variable             | Pre-treatment | Post-treatment | P-value (Bonferroni-adjusted) |
|----------------------|---------------|----------------|-------------------------------|
| **Sleep duration†**  |               |                |                               |
| More than 7 hours    | 2.7% (n=5)    | 64% (n=119)    |                               |
| 5 – 7 hours          | 29% (n=54)    | 28.5% (n=53)   | <0.001                        |
| 3 – less than 5 hours| 51.6% (n=96)  | 7.5% (n=14)    |                               |
| Less than 3 hours    | 16.7% (n=31)  | --             |                               |
| **Sleep latency‡**   |               |                |                               |
| Less than 15 minutes | 41.9% (n=78)  | 98.4% (n=183)  |                               |
| 15-30 minutes        | 37.1% (n=69)  | 1.6% (n=3)     | <0.001                        |
| 30-60 minutes        | 11.8% (n=22)  | --             |                               |
| 60 minutes or more   | 9.1% (n=17)   | --             |                               |

† The mean score difference were compared using a linear mixed model, controlling for age, gender and primary diagnosis for hospitalization. Since six statistical tests were used in the pre and post intervention comparison (i.e. one each for sleep duration, latency, efficiency, days dysfunction, primary diagnosis and medication), we applied Bonferroni correction by multiplying p-value by 6.
Table S3: Distribution of age, gender and primary diagnosis for hospitalization among study patients – stratified by the sedative-hypnotic drug use

| Primary diagnosis          | Benzodiazepines (N=137) | Zolpidem (N=49) |
|----------------------------|-------------------------|-----------------|
|                            | Total patients | Age (Mean SD) | % Females | Total patients | Age (Mean SD) | % Females |
| Cardiovascular disease     | 38            | 60.0 (6.3)   | 28.9      | 4              | 61.3 (4.5)   | 0.0       |
| Respiratory diseases       | 16            | 61.3 (4.0)   | 31.3      | 21             | 64.0 (6.9)   | 23.8      |
| Infectious diseases        | 13            | 59.4 (6.4)   | 46.2      | 12             | 59.7 (6.8)   | 50.0      |
| Psychiatric disorders      | 27            | 52.6 (6.7)   | 55.6      | 1              | 70.0         | 0.0       |
| Fracture                   | 8             | 56.8 (9.3)   | 37.5      | 6              | 58.3 (11.8)  | 83.3      |
| Urologic diseases          | 24            | 57.1 (7.1)   | 20.8      | 2              | 64.0 (7.1)   | 50.0      |
| Other diseases             | 11            | 63.5 (5.7)   | 45.5      | 3              | 62.3 (12.4)  | 33.3      |

Table S4: Patient-reported side effects following sedative-hypnotic therapy

| Reported side effect       | Frequency | Alprazolam | Clonazepam | Lorazepam | Nitrazepam | Zolpidem |
|----------------------------|-----------|------------|------------|-----------|------------|----------|
| Daytime drowsiness         | 3.2% (n=6)| 1          | 2          | 2         | 1          | –        |
| Dizziness                  | 1.6% (n=3)| 1          | –          | 1         | –          | 1        |
| Dry Mouth                  | 0.5% (n=1)| –          | –          | –         | –          | 1        |
| Dysgeusia                  | 1.1% (n=2)| –          | –          | –         | –          | 2        |
| Early awakening            | 2.1% (n=4)| –          | 2          | 2         | –          | –        |
| Nightmare                  | 1.6% (n=3)| 1          | 1          | –         | –          | 1        |

Figure S1: Reasons for nighttime sleep disturbance among patients