

Supplementary 8. Cost analysis according to age between hospitalist and non-hospitalist groups (N=6391)

| Cost per patient admission (USD)                        | Age < 50yrs (N=1098) |              |         | Age : 50-59yrs (N=900) |              |         |
|---------------------------------------------------------|----------------------|--------------|---------|------------------------|--------------|---------|
|                                                         | HG (n=488)           | NHG (n=610)  | P value | HG (n=401)             | NHG (n=499)  | P value |
| Total costs                                             | 34234±156382         | 46473±187530 | 0.248   | 36276±130259           | 66967±179600 | 0.004   |
| Direct costs                                            | 4965±7242            | 5876±10166   | 0.096   | 5692±6952              | 7175±9271    | 0.008   |
| Direct medical costs                                    | 3613±5814            | 4448±8728    | 0.070   | 4189±5572              | 5538±7717    | 0.003   |
| Consultation fee                                        | 228±220              | 237±232      | 0.508   | 246±209                | 270±262      | 0.151   |
| Admission fee                                           | 771±1372             | 972±1629     | 0.030   | 822±1027               | 1091±1540    | 0.003   |
| Medication fee                                          | 900±1892             | 931±2958     | 0.840   | 1091±2590              | 1259±3331    | 0.407   |
| Treatment and surgery fee                               | 221±1037             | 402±2643     | 0.155   | 216±546                | 433±1481     | 0.006   |
| Medical examination fee                                 | 1058±1452            | 1362±1855    | 0.003   | 1273±1478              | 1645±1761    | 0.001   |
| Therapeutic materials                                   | 256±715              | 410±1298     | 0.019   | 314±688                | 636±1332     | 0.000   |
| Others                                                  | 179±619              | 134±293      | 0.118   | 227±706                | 204±621      | 0.611   |
| Direct non-medical costs                                | 1352±1593            | 1428±1674    | 0.450   | 1503±1534              | 1637±1924    | 0.256   |
| Family caregiver transportation fare in hospitalization | 178±206              | 185±217      | 0.573   | 197±199                | 212±249      | 0.327   |
| Paid care cost in hospitalization                       | 499±580              | 520±610      | 0.573   | 554±558                | 596±701      | 0.327   |
| Doctor's labor cost                                     | 675±807              | 723±848      | 0.346   | 752±778                | 829±974      | 0.197   |
| Indirect costs                                          | 29269±154339         | 40597±184984 | 0.279   | 30584±128853           | 59792±177975 | 0.006   |
| Patient productivity loss according to LOS              | 828±1155             | 858±1165     | 0.673   | 974±1022               | 1057±1300    | 0.298   |
| Family caregiver productivity loss according to LOS     | 1010±1173            | 1052±1234    | 0.573   | 1121±1130              | 1206±1418    | 0.327   |
| Patient productivity loss according to ED-LOS           | 108±90               | 138±123      | 0.000   | 127±102                | 170±137      | 0.000   |
| Patient productivity loss according to IHM              | 27322±153740         | 38550±184509 | 0.281   | 28362±128452           | 57359±177723 | 0.006   |

Supplementary 6. Cost analysis according to age between hospitalist and non-hospitalist groups (N=6391)

| Cost per patient admission (USD)                        | Age : 60-69yrs (N=1275) |             |         | Age : 70-79yrs (N=1763) |              |         |
|---------------------------------------------------------|-------------------------|-------------|---------|-------------------------|--------------|---------|
|                                                         | HG (n=542)              | NHG (n=733) | P value | HG (n=632)              | NHG (n=1131) | P value |
| Total costs                                             | 14345±35835             | 22699±45307 | 0.000   | 11861±22867             | 15868±28322  | 0.002   |
| Direct costs                                            | 5327±6734               | 7278±9428   | 0.000   | 6154±10486              | 6936±9155    | 0.103   |
| Direct medical costs                                    | 3915±5716               | 5517±7852   | 0.000   | 4500±8559               | 5232±7548    | 0.063   |
| Consultation fee                                        | 240±162                 | 285±255     | 0.000   | 264±230                 | 277±246      | 0.300   |
| Admission fee                                           | 855±1166                | 1208±1712   | 0.000   | 1024±2555               | 1199±1843    | 0.098   |
| Medication fee                                          | 930±3214                | 1132±2876   | 0.239   | 902±2019                | 818±1741     | 0.359   |
| Treatment and surgery fee                               | 226±799                 | 454±1679    | 0.004   | 339±1606                | 504±1840     | 0.058   |
| Medical examination fee                                 | 1210±1355               | 1663±1737   | 0.000   | 1425±2134               | 1640±1820    | 0.025   |
| Therapeutic materials                                   | 275±661                 | 561±1216    | 0.000   | 329±972                 | 608±1712     | 0.000   |
| Others                                                  | 179±545                 | 215±574     | 0.264   | 218±670                 | 187±499      | 0.269   |
| Direct non-medical costs                                | 1412±1232               | 1760±1963   | 0.000   | 1654±2069               | 1703±1915    | 0.613   |
| Family caregiver transportation fare in hospitalization | 185±160                 | 228±254     | 0.001   | 217±268                 | 221±248      | 0.750   |
| Paid care cost in hospitalization                       | 521±449                 | 641±715     | 0.001   | 609±753                 | 620±697      | 0.750   |
| Doctor's labor cost                                     | 706±624                 | 891±994     | 0.000   | 828±1048                | 863±970      | 0.492   |
| Indirect costs                                          | 9018±32832              | 15422±42473 | 0.004   | 5707±17578              | 8932±24592   | 0.004   |
| Patient productivity loss according to LOS              | 349±335                 | 421±466     | 0.002   | 384±457                 | 399±476      | 0.526   |
| Family caregiver productivity loss according to LOS     | 1054±908                | 1297±1446   | 0.001   | 1232±1524               | 1255±1411    | 0.750   |
| Patient productivity loss according to ED-LOS           | 52±45                   | 65±55       | 0.000   | 54±48                   | 60±47        | 0.011   |
| Patient productivity loss according to IHM              | 7563±32516              | 13638±42175 | 0.005   | 4037±17173              | 7218±24265   | 0.004   |

**Supplementary 6.** Cost analysis according to age between hospitalist and non-hospitalist groups (N=6391)

| Age ≥ 80yrs (N=1355)                                    |            |             |         |
|---------------------------------------------------------|------------|-------------|---------|
| Cost per patient admission (USD)                        | HG (n=363) | NHG (n=992) | P value |
| Total costs                                             | 9310±13469 | 12453±15958 | 0.001   |
| Direct costs                                            | 5676±6668  | 6261±5986   | 0.122   |
| Direct medical costs                                    | 4066±5144  | 4622±4755   | 0.062   |
| Consultation fee                                        | 283±285    | 268±202     | 0.298   |
| Admission fee                                           | 918±1145   | 1257±1618   | 0.000   |
| Medication fee                                          | 684±1400   | 579±929     | 0.111   |
| Treatment and surgery fee                               | 312±862    | 352±699     | 0.377   |
| Medical examination fee                                 | 1367±1315  | 1490±1230   | 0.109   |
| Therapeutic materials                                   | 360±1225   | 528±1531    | 0.059   |
| Others                                                  | 142±284    | 147±310     | 0.810   |
| Direct non-medical costs                                | 1610±1801  | 1639±1452   | 0.760   |
| Family caregiver transportation fare in hospitalization | 211±233    | 212±188     | 0.903   |
| Paid care cost in hospitalization                       | 592±655    | 597±528     | 0.903   |
| Doctor's labor cost                                     | 806±913    | 830±735     | 0.627   |
| Indirect costs                                          | 3634±9536  | 6192±13504  | 0.001   |
| Patient productivity loss according to LOS              | 364±413    | 367±352     | 0.886   |
| Family caregiver productivity loss according to LOS     | 1199±1326  | 1207±1069   | 0.903   |
| Patient productivity loss according to ED-LOS           | 50±38      | 56±42       | 0.026   |
| Patient productivity loss according to IHM              | 2021±9274  | 4561±13363  | 0.001   |

Data are presented as mean ± standard deviation. HG, hospitalist group; NHG, non-hospitalist group; ED-LOS, emergency department length of stay; LOS,

length of hospital stay; IHM, in hospital mortality; Cost unit: USD (U.S. Dollar), (\$1= 1307.9 KRW, year: 2023)