**Additional File 2**

**The lists and definitions of disease categories for index hospitalization among the patients from non-DPC group**

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| --- | --- | --- |
| Disease categories  | ICD-10 code | References for defining disease categories  |
| Falls or fracture (excluding fracture from motor vehicle accidents) | W01, W05-W08, W10, W18, W19, and S02, S12, S22, S32, S42, S52, S62, S72, S82, S92  | [1] |
| Pneumonia (including aspiration pneumonia)  | J12-J18, P23, J69  | [2] |
| Cerebrovascular disease  | I60-I69  | [3] |
| Essential hypertension and hypertensive renal disease | I10, I12, I15  | [3] |
| Heart failure  | I50  | [3] |
| Urinary infection  | N30, N39  | [4] |
| Problems in nervous system | G00-G99  | [5] |
| Nutrition related problems  | R63: Anorexia, abnormal weight loss, underweight, feeding difficulties; R13: Dysphagia; E41: Nutritional marasmus; E46: Unspecified protein-calorie malnutrition; E63: Other nutritional deficiencies  | [6] |
| Diabetes mellitus  | E10–E14 | [3] |
| Dehydration  | E86, E87  | [7] |
| *Note.* DPC means diagnosis procedure combination. Using the variables in national health insurance claims data, this study could include maximum 3 digits of ICD-10 code for defining disease. The list of diseases was arranged in order of frequency in patients with discharge conference.  |

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