

Supplementary Table 1. Operational definitions of hip fracture, vertebral fracture, distal radius fracture, and humerus fracture used in this study

Hip fracture	(1) Admission with diagnostic codes and procedure codes
	- Procedure code within 1 month after diagnostic code
	- Index date: date of procedure coding
	(2) Procedure code and emergency admission
	- Index date: emergency admission date
	Diagnostic codes: S72.0, S72.1
	Procedure codes: N0601, N0991, N0981, N0641, N0652, N0654, N0715, N0711, N0611, N2070, N2710
Vertebral fracture	(1) Diagnostic codes and procedure codes
	<ul> <li>Diagnostic code should have been coded within 1 month before the procedure codes</li> <li>Index date: date of procedure coding</li> </ul>
	(2) Diagnostic codes as primary diagnosis and imaging procedure codes (irrespective of admission of the patient)
	- Diagnosis should have been coded as primary diagnosis within 1 month before or after the coding of imaging procedure
	- Index date: date of imaging procedure coding
	(3) Admission with diagnostic codes as primary diagnosis
	- Index date: date of the admission
	Diagnostic codes: S22.0, S22.1, S32.0, S32.7, T08.0, M48.4, M48.5, M49.5, M80.8
	Procedure codes: N0471, N0472, N0473, N0474, N0630
	Imaging procedure codes: G430, G440, G450, G460
Distal radius fracture	(1) Diagnostic codes and procedure codes
	- Diagnostic code should have been coded within 1 month before the procedure codes
	- Index date: date of procedure coding
	(2) Diagnostic codes as primary diagnosis and conservative codes
	- Index date: date of conservative coding
	- Diagnosis should have been coded as primary diagnosis within 1 month before or after the coding of conservative code
	Diagnostic codes: S52.5, S52.6
	Procedure codes: N1601, N1611, N1603, N1613, N0996, N0998, N0983
	Conservative codes: T6020, T6030, T6151, T6152
Humerus fracture	(1) Diagnostic codes and procedure codes
	- Diagnostic code should have been coded within 1 month before the procedure codes
	- Index date: date of procedure coding
	(2) Diagnostic codes as primary diagnosis and conservative codes
	- Index date: date of conservative coding
	- Diagnosis should have been coded as primary diagnosis within 1 month before or after the coding of conservative code
	(3) More than three outpatient visits or one admission with diagnostic codes as primary diagnosis
	- Index date: admission date or first outpatient date
	Diagnostic codes: S42.2, S42.3
	Procedure codes: N0602, N0612, N0992, N0982, N0986, N0722, N2711, N2716
	Conservative codes: T6010, T6110