



**AHRQ Quality Indicators™ (AHRQ QI™)
ICD-9-CM and ICD-10-CM/PCS
Specification Enhanced Version 5.0**

**Inpatient Quality Indicators #19 (IQI #19)
Hip Fracture Mortality Rate**

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Provider-Level Indicator
Type of Score: Rate**

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IQI #19 Hip Fracture Mortality Rate

DESCRIPTION

In-hospital deaths per 1,000 hospital discharges with hip fracture as a principal diagnosis for patients ages 65 years and older. Excludes periprosthetic fracture discharges, obstetric discharges, and transfers to another hospital.

[NOTE: The software provides the rate per hospital discharge. However, common practice reports the measure as per 1,000 discharges. The user must multiply the rate obtained from the software by 1,000 to report in-hospital deaths per 1,000 hospital discharges.]

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NUMERATOR

Number of deaths (DISP=20) among cases meeting the inclusion and exclusion rules for the denominator.

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NUMERATOR EXCLUSIONS
<i>Not Applicable</i>

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DENOMINATOR			
Discharges, for patients ages 65 years and older, with a principal ICD-9-CM or ICD-10-CM diagnosis code for hip fracture.			
<i>Hip fracture diagnosis codes: (MTHIPFD)</i>			
ICD-9-CM	Description	ICD-10-CM	Description
82000	FX FEMUR INTRCAPS NOS-CL	M80051	Age-related osteoporosis with current pathological fracture, right femur
82001	FX UP FEMUR EPIPHY-CLOS	M80052	Age-related osteoporosis with current pathological fracture, left femur
82002	FX FEMUR, MIDCERVIC-CLOS	M80059	Age-related osteoporosis with current pathological fracture, unspecified femur
82003	FX BASE FEMORAL NCK-CLOS	M80851	Other osteoporosis with current pathological fracture, right femur
82009	FX FEMUR INTRCAPS NEC-CL	M80852	Other osteoporosis with current pathological fracture, left femur
82010	FX FEMUR INTRCAP NOS-OPN	M80859	Other osteoporosis with current pathological fracture, unspecified femur
82011	FX UP FEMUR EPIPHY-OPEN	S72001A	Fracture of unspecified part of neck of right femur, initial encounter for closed fracture
82012	FX FEMUR, MIDCERVIC-OPEN	S72001B	Fracture of unspecified part of neck of right femur, initial encounter for open fracture type I or II
82013	FX BASE FEMORAL NCK-OPEN	S72001C	Fracture of unspecified part of neck of right femur, initial encounter for open fracture type IIIA, IIIB, or IIIC
82019	FX FEMUR INTRCAP NEC-OPN	S72002A	Fracture of unspecified part of neck of left femur, initial encounter for closed fracture

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82020	TROCHANTERIC FX NOS-CLOS	S72002B	Fracture of unspecified part of neck of left femur, initial encounter for open fracture type I or II
82021	INTERTROCHANTERIC FX-CL	S72002C	Fracture of unspecified part of neck of left femur, initial encounter for open fracture type IIIA, IIIB, or IIIC
82022	SUBTROCHANTERIC FX-CLOSE	S72009A	Fracture of unspecified part of neck of unspecified femur, initial encounter for closed fracture
82030	TROCHANTERIC FX NOS-OPEN	S72009B	Fracture of unspecified part of neck of unspecified femur, initial encounter for open fracture type I or II
82031	INTERTROCHANTERIC FX-OPN	S72009C	Fracture of unspecified part of neck of unspecified
82032	SUBTROCHANTERIC FX-OPEN	S72011A	Unspecified intracapsular fracture of right femur, initial encounter for closed fracture
8208	FX NECK OF FEMUR NOS-CL	S72011B	Unspecified intracapsular fracture of right femur, initial encounter for open fracture type I or II
8209	FX NECK OF FEMUR NOS-OPN	S72011C	Unspecified intracapsular fracture of right femur, initial encounter for open fracture type IIIA, IIIB, or IIIC
		S72012A	Unspecified intracapsular fracture of left femur, initial encounter for closed fracture
		S72012B	Unspecified intracapsular fracture of left femur, initial encounter for open fracture type I or II
		S72012C	Unspecified intracapsular fracture of left femur, initial encounter for open fracture type IIIA, IIIB, or IIIC
		S72019A	Unspecified intracapsular fracture of unspecified femur, initial encounter for closed fracture

S72019B	Unspecified intracapsular fracture of unspecified femur, initial encounter for open fracture type I or II
S72019C	Unspecified intracapsular fracture of unspecified femur, initial encounter for open fracture type IIIA, IIIB, or IIIC
S72031A	Displaced midcervical fracture of right femur, initial encounter for closed fracture
S72031B	Displaced midcervical fracture of right femur, initial encounter for open fracture type I or II
S72031C	Displaced midcervical fracture of right femur, initial encounter for open fracture type IIIA, IIIB, or IIIC
S72032A	Displaced midcervical fracture of left femur, initial encounter for closed fracture
S72032B	Displaced midcervical fracture of left femur, initial encounter for open fracture type I or II
S72032C	Displaced midcervical fracture of left femur, initial encounter for open fracture type IIIA, IIIB, or IIIC
S72033A	Displaced midcervical fracture of unspecified femur,
S72033B	Displaced midcervical fracture of unspecified femur, initial encounter for open fracture type I or II
S72033C	Displaced midcervical fracture of unspecified femur, initial encounter for open fracture type IIIA, IIIB, or IIIC
S72034A	Nondisplaced midcervical fracture of right femur, initial encounter for closed fracture

S72034B	Nondisplaced midcervical fracture of right femur, initial encounter for open fracture type I or II
S72034C	Nondisplaced midcervical fracture of right femur, initial encounter for open fracture type IIIA, IIIB, or IIIC
S72035A	Nondisplaced midcervical fracture of left femur, initial encounter for closed fracture
S72035B	Nondisplaced midcervical fracture of left femur, initial encounter for open fracture type I or II
S72035C	Nondisplaced midcervical fracture of left femur, initial encounter for open fracture type IIIA, IIIB, or IIIC
S72036A	Nondisplaced midcervical fracture of unspecified femur, initial encounter for closed fracture
S72036B	Nondisplaced midcervical fracture of unspecified femur, initial encounter for open fracture type I or II
S72036C	Nondisplaced midcervical fracture of unspecified femur, initial encounter for open fracture type IIIA, IIIB, or IIIC
S72041A	Displaced fracture of base of neck of right femur, initial encounter for closed fracture
S72041B	Displaced fracture of base of neck of right femur, initial encounter for open fracture type I or II
S72041C	Displaced fracture of base of neck of right femur, initial encounter for open fracture type IIIA, IIIB, or IIIC
S72042A	Displaced fracture of base of neck of left femur, initial encounter for closed fracture

S72042B	Displaced fracture of base of neck of left femur, initial encounter for open fracture type I or II
S72042C	Displaced fracture of base of neck of left femur, initial encounter for open fracture type IIIA, IIIB, or IIIC
S72043A	Displaced fracture of base of neck of unspecified femur, initial encounter for closed fracture
S72043B	Displaced fracture of base of neck of unspecified femur, initial encounter for open fracture type I or II
S72043C	Displaced fracture of base of neck of unspecified femur, initial encounter for open fracture type IIIA, IIIB, or IIIC
S72044A	Nondisplaced fracture of base of neck of right femur, initial encounter for closed fracture
S72044B	Nondisplaced fracture of base of neck of right femur, initial encounter for open fracture type I or II
S72044C	Nondisplaced fracture of base of neck of right femur, initial encounter for open fracture type IIIA, IIIB, or IIIC
S72045A	Nondisplaced fracture of base of neck of left femur, initial encounter for closed fracture
S72045B	Nondisplaced fracture of base of neck of left femur, initial encounter for open fracture type I or II
S72045C	Nondisplaced fracture of base of neck of left femur, initial encounter for open fracture type IIIA, IIIB, or IIIC

S72046A	Nondisplaced fracture of base of neck of unspecified femur, initial encounter for closed fracture
S72046B	Nondisplaced fracture of base of neck of unspecified femur, initial encounter for open fracture type I or II
S72046C	Nondisplaced fracture of base of neck of unspecified femur, initial encounter for open fracture type IIIA, IIIB, or IIIC
S72051A	Unspecified fracture of head of right femur, initial encounter for closed fracture
S72051B	Unspecified fracture of head of right femur, initial encounter for open fracture type I or II
S72051C	Unspecified fracture of head of right femur, initial encounter for open fracture type IIIA, IIIB, or IIIC
S72052A	Unspecified fracture of head of left femur, initial encounter for closed fracture
S72052B	Unspecified fracture of head of left femur, initial encounter for open fracture type I or II
S72052C	Unspecified fracture of head of left femur, initial encounter for open fracture type IIIA, IIIB, or IIIC
S72059A	Unspecified fracture of head of unspecified femur, initial encounter for closed fracture
S72059B	Unspecified fracture of head of unspecified femur, initial encounter for open fracture type I or II
S72059C	Unspecified fracture of head of unspecified femur, initial encounter for open fracture type IIIA, IIIB, or IIIC
S72061A	Displaced articular fracture of head of right femur, initial encounter for closed fracture

S72061B	Displaced articular fracture of head of right femur, initial encounter for open fracture type I or II
S72061C	Displaced articular fracture of head of right femur, initial encounter for open fracture type IIIA, IIIB, or IIIC
S72062A	Displaced articular fracture of head of left femur, initial encounter for closed fracture
S72062B	Displaced articular fracture of head of left femur, initial encounter for open fracture type I or II
S72062C	Displaced articular fracture of head of left femur, initial encounter for open fracture type IIIA, IIIB, or IIIC
S72063A	Displaced articular fracture of head of unspecified femur, initial encounter for closed fracture
S72063B	Displaced articular fracture of head of unspecified femur, initial encounter for open fracture type I or II
S72063C	Displaced articular fracture of head of unspecified femur, initial encounter for open fracture type IIIA, IIIB, or IIIC
S72064A	Nondisplaced articular fracture of head of right femur, initial encounter for closed fracture
S72064B	Nondisplaced articular fracture of head of right femur, initial encounter for open fracture type I or II
S72064C	Nondisplaced articular fracture of head of right femur, initial encounter for open fracture type IIIA, IIIB, or IIIC

S72065A	Nondisplaced articular fracture of head of left femur, initial encounter for closed fracture
S72065B	Nondisplaced articular fracture of head of left femur, initial encounter for open fracture type I or II
S72065C	Nondisplaced articular fracture of head of left femur, initial encounter for open fracture type IIIA, IIIB, or IIIC
S72066A	Nondisplaced articular fracture of head of unspecified femur, initial encounter for closed fracture
S72066B	Nondisplaced articular fracture of head of unspecified femur, initial encounter for open fracture type I or II
S72066C	Nondisplaced articular fracture of head of unspecified femur, initial encounter for open fracture type IIIA, IIIB, or IIIC
S72091A	Other fracture of head and neck of right femur, initial encounter for closed fracture
S72091B	Other fracture of head and neck of right femur, initial encounter for open fracture type I or II
S72091C	Other fracture of head and neck of right femur, initial encounter for open fracture type IIIA, IIIB, or IIIC
S72092A	Other fracture of head and neck of left femur, initial encounter for closed fracture
S72092B	Other fracture of head and neck of left femur, initial encounter for open fracture type I or II

S72092C	Other fracture of head and neck of left femur, initial encounter for open fracture type IIIA, IIIB, or IIIC
S72099A	Other fracture of head and neck of unspecified femur, initial encounter for closed fracture
S72099B	Other fracture of head and neck of unspecified femur, initial encounter for open fracture type I or II
S72099C	Other fracture of head and neck of unspecified femur, initial encounter for open fracture type IIIA, IIIB, or IIIC
S72101A	Unspecified trochanteric fracture of right femur, initial encounter for closed fracture
S72101B	Unspecified trochanteric fracture of right femur, initial encounter for open fracture type I or II
S72101C	Unspecified trochanteric fracture of right femur, initial encounter for open fracture type IIIA, IIIB, or IIIC
S72102A	Unspecified trochanteric fracture of left femur, initial encounter for closed fracture
S72102B	Unspecified trochanteric fracture of left femur, initial encounter for open fracture type I or II
S72102C	Unspecified trochanteric fracture of left femur, initial encounter for open fracture type IIIA, IIIB, or IIIC
S72109A	Unspecified trochanteric fracture of unspecified femur, initial encounter for closed fracture

S72109B	Unspecified trochanteric fracture of unspecified femur, initial encounter for open fracture type I or II
S72109C	Unspecified trochanteric fracture of unspecified femur, initial encounter for open fracture type IIIA, IIIB, or IIIC
S72111A	Displaced fracture of greater trochanter of right femur, initial encounter for closed fracture
S72111B	Displaced fracture of greater trochanter of right femur, initial encounter for open fracture type I or II
S72111C	Displaced fracture of greater trochanter of right femur, initial encounter for open fracture type IIIA, IIIB, or IIIC
S72112A	Displaced fracture of greater trochanter of left femur, initial encounter for closed fracture
S72112B	Displaced fracture of greater trochanter of left femur, initial encounter for open fracture type I or II
S72112C	Displaced fracture of greater trochanter of left femur, initial encounter for open fracture type IIIA, IIIB, or IIIC
S72113A	Displaced fracture of greater trochanter of unspecified femur, initial encounter for closed fracture
S72113B	Displaced fracture of greater trochanter of unspecified femur, initial encounter for open fracture type I or II

S72113C	Displaced fracture of greater trochanter of unspecified femur, initial encounter for open fracture type IIIA, IIIB, or IIIC
S72114A	Nondisplaced fracture of greater trochanter of right femur, initial encounter for closed fracture
S72114B	Nondisplaced fracture of greater trochanter of right femur, initial encounter for open fracture type I or II
S72114C	Nondisplaced fracture of greater trochanter of right femur, initial encounter for open fracture type IIIA, IIIB, or IIIC
S72115A	Nondisplaced fracture of greater trochanter of left femur, initial encounter for closed fracture
S72115B	Nondisplaced fracture of greater trochanter of left femur, initial encounter for open fracture type I or II
S72115C	Nondisplaced fracture of greater trochanter of left femur, initial encounter for open fracture type IIIA, IIIB, or IIIC
S72116A	Nondisplaced fracture of greater trochanter of unspecified femur, initial encounter for closed fracture
S72116B	Nondisplaced fracture of greater trochanter of unspecified femur, initial encounter for open fracture type I or II
S72116C	Nondisplaced fracture of greater trochanter of unspecified femur, initial encounter for open fracture type IIIA, IIIB, or IIIC
S72121A	Displaced fracture of lesser trochanter of right femur, initial encounter for closed fracture

S72121B	Displaced fracture of lesser trochanter of right femur, initial encounter for open fracture type I or II
S72121C	Displaced fracture of lesser trochanter of right femur, initial encounter for open fracture type IIIA, IIIB, or IIIC
S72122A	Displaced fracture of lesser trochanter of left femur, initial encounter for closed fracture
S72122B	Displaced fracture of lesser trochanter of left femur, initial encounter for open fracture type I or II
S72122C	Displaced fracture of lesser trochanter of left femur, initial encounter for open fracture type IIIA, IIIB, or IIIC
S72123A	Displaced fracture of lesser trochanter of unspecified femur, initial encounter for closed fracture
S72123B	Displaced fracture of lesser trochanter of unspecified femur, initial encounter for open fracture type I or II
S72123C	Displaced fracture of lesser trochanter of unspecified femur, initial encounter for open fracture type IIIA, IIIB, or IIIC
S72124A	Nondisplaced fracture of lesser trochanter of right femur, initial encounter for closed fracture
S72124B	Nondisplaced fracture of lesser trochanter of right femur, initial encounter for open fracture type I or II

S72124C	Nondisplaced fracture of lesser trochanter of right femur, initial encounter for open fracture type IIIA, IIIB, or IIIC
S72125A	Nondisplaced fracture of lesser trochanter of left femur, initial encounter for closed fracture
S72125B	Nondisplaced fracture of lesser trochanter of left femur, initial encounter for open fracture type I or II
S72125C	Nondisplaced fracture of lesser trochanter of left femur, initial encounter for open fracture type IIIA, IIIB, or IIIC
S72126A	Nondisplaced fracture of lesser trochanter of unspecified femur, initial encounter for closed fracture
S72126B	Nondisplaced fracture of lesser trochanter of unspecified femur, initial encounter for open fracture type I or II
S72126C	Nondisplaced fracture of lesser trochanter of unspecified femur, initial encounter for open fracture type IIIA, IIIB, or IIIC
S72131A	Displaced apophyseal fracture of right femur, initial encounter for closed fracture
S72131B	Displaced apophyseal fracture of right femur, initial encounter for open fracture type I or II
S72131C	Displaced apophyseal fracture of right femur, initial encounter for open fracture type IIIA, IIIB, or IIIC
S72132A	Displaced apophyseal fracture of left femur, initial encounter for closed fracture

S72132B	Displaced apophyseal fracture of left femur, initial encounter for open fracture type I or II
S72132C	Displaced apophyseal fracture of left femur, initial encounter for open fracture type IIIA, IIIB, or IIIC
S72133A	Displaced apophyseal fracture of unspecified femur, initial encounter for closed fracture
S72133B	Displaced apophyseal fracture of unspecified femur, initial encounter for open fracture type I or II
S72133C	Displaced apophyseal fracture of unspecified femur, initial encounter for open fracture type IIIA, IIIB, or IIIC
S72134A	Nondisplaced apophyseal fracture of right femur, initial encounter for closed fracture
S72134B	Nondisplaced apophyseal fracture of right femur, initial encounter for open fracture type I or II
S72134C	Nondisplaced apophyseal fracture of right femur, initial encounter for open fracture type IIIA, IIIB, or IIIC
S72135A	Nondisplaced apophyseal fracture of left femur, initial encounter for closed fracture
S72135B	Nondisplaced apophyseal fracture of left femur, initial encounter for open fracture type I or II
S72135C	Nondisplaced apophyseal fracture of left femur, initial encounter for open fracture type IIIA, IIIB, or IIIC
S72136A	Nondisplaced apophyseal fracture of unspecified femur, initial encounter for closed fracture

S72136B	Nondisplaced apophyseal fracture of unspecified femur, initial encounter for open fracture type I or II
S72136C	Nondisplaced apophyseal fracture of unspecified femur, initial encounter for open fracture type IIIA, IIIB, or IIIC
S72141A	Displaced intertrochanteric fracture of right femur, initial encounter for closed fracture
S72141B	Displaced intertrochanteric fracture of right femur, initial encounter for open fracture type I or II
S72141C	Displaced intertrochanteric fracture of right femur, initial encounter for open fracture type IIIA, IIIB, or IIIC
S72142A	Displaced intertrochanteric fracture of left femur, initial encounter for closed fracture
S72142B	Displaced intertrochanteric fracture of left femur, initial encounter for open fracture type I or II
S72142C	Displaced intertrochanteric fracture of left femur, initial encounter for open fracture type IIIA, IIIB, or IIIC
S72143A	Displaced intertrochanteric fracture of unspecified femur, initial encounter for closed fracture
S72143B	Displaced intertrochanteric fracture of unspecified femur, initial encounter for open fracture type I or II
S72143C	Displaced intertrochanteric fracture of unspecified femur, initial encounter for open fracture type IIIA, IIIB, or IIIC

S72144A	Nondisplaced intertrochanteric fracture of right femur, initial encounter for closed fracture
S72144B	Nondisplaced intertrochanteric fracture of right femur, initial encounter for open fracture type I or II
S72144C	Nondisplaced intertrochanteric fracture of right femur, initial encounter for open fracture type IIIA, IIIB, or IIIC
S72145A	Nondisplaced intertrochanteric fracture of left femur, initial encounter for closed fracture
S72145B	Nondisplaced intertrochanteric fracture of left femur, initial encounter for open fracture type I or II
S72145C	Nondisplaced intertrochanteric fracture of left femur, initial encounter for open fracture type IIIA, IIIB, or IIIC
S72146A	Nondisplaced intertrochanteric fracture of unspecified femur, initial encounter for closed fracture
S72146B	Nondisplaced intertrochanteric fracture of unspecified femur, initial encounter for open fracture type I or II
S72146C	Nondisplaced intertrochanteric fracture of unspecified femur, initial encounter for open fracture type IIIA, IIIB, or IIIC
S7221XA	Displaced subtrochanteric fracture of right femur, initial encounter for closed fracture
S7221XB	Displaced subtrochanteric fracture of right femur, initial encounter for open fracture type I or II

S7221XC	Displaced subtrochanteric fracture of right femur, initial encounter for open fracture type IIIA, IIIB, or IIIC
S7222XA	Displaced subtrochanteric fracture of left femur, initial encounter for closed fracture
S7222XB	Displaced subtrochanteric fracture of left femur, initial encounter for open fracture type I or II
S7222XC	Displaced subtrochanteric fracture of left femur, initial encounter for open fracture type IIIA, IIIB, or IIIC
S7223XA	Displaced subtrochanteric fracture of unspecified femur, initial encounter for closed fracture
S7223XB	Displaced subtrochanteric fracture of unspecified femur, initial encounter for open fracture type I or II
S7223XC	Displaced subtrochanteric fracture of unspecified femur, initial encounter for open fracture type IIIA, IIIB, or IIIC
S7224XA	Nondisplaced subtrochanteric fracture of right femur, initial encounter for closed fracture
S7224XB	Nondisplaced subtrochanteric fracture of right femur, initial encounter for open fracture type I or II
S7224XC	Nondisplaced subtrochanteric fracture of right femur, initial encounter for open fracture type IIIA, IIIB, or IIIC
S7225XA	Nondisplaced subtrochanteric fracture of left femur, initial encounter for closed fracture

S7225XB	Nondisplaced subtrochanteric fracture of left femur, initial encounter for open fracture type I or II
S7225XC	Nondisplaced subtrochanteric fracture of left femur, initial encounter for open fracture type IIIA, IIIB, or IIIC
S7226XA	Nondisplaced subtrochanteric fracture of unspecified femur, initial encounter for closed fracture
S7226XB	Nondisplaced subtrochanteric fracture of unspecified femur, initial encounter for open fracture type I or II
S7226XC	Nondisplaced subtrochanteric fracture of unspecified femur, initial encounter for open fracture type IIIA, IIIB, or IIIC

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DENOMINATOR EXCLUSIONS

Exclude cases:

- with any-listed ICD-9-CM or ICD-10-CM diagnosis codes for periprosthetic fracture
- transferring to another short-term hospital (DISP=2)
- MDC 14 (pregnancy, childbirth, and puerperium)
- with missing discharge disposition (DISP=missing), gender (SEX=missing), age (AGE=missing), quarter (DQTR=missing), year (YEAR=missing) or principal diagnosis (DX1=missing)

Periprosthetic fracture diagnosis code: (MTHIP2D)

ICD-9-CM	Description	ICD-10-CM	Description
99644	PERIPROSTHETIC FX-PROS JT	T84040A	Periprosthetic fracture around internal prosthetic right hip joint, initial encounter
		T84041A	Periprosthetic fracture around internal prosthetic left hip joint, initial encounter