

SUPPLEMENT

Supplementary Table 1 List of selected four types of surgeries

Category 1: Arthroscopy	Category 2: Reconstructive	Category 3: Fracture Fixation
• acromioplasty • anterior cruciate ligament • arthroscopy (ankle, elbow, knee, shoulder) • posterior cruciate ligament	• hand replacement • hemiarthroplasty • radial head replacement • shoulder replacement • total hip replacement • total knee replacement	• close manipulative reduction • dynamic hip screw • interlocking nail technique • K. wiring • open reduction internal fixation/plating • tension band wiring

Abbreviation: K. wiring, Kirschner wiring.

Supplementary Table 2 Anatomical therapeutic chemical (ATC) code and defined daily dose (DDD) for NSAIDs

	Generic name	Strength	ATC Code	Route of Administration	Defined Daily Dose (DDD _{WHO})	
					DDD	Unit
tNSAID	Dexketoprofen injection	50mg/2ml	M01AE17	Parenteral	75	mg
	Diclofenac sodium tablet	50mg	M01AB05	Oral	0.1	g
coxib	Celecoxib capsule	200mg, 400mg	M01AH01	Oral	0.2	g
	Etoricoxib tablet	60mg, 90mg, 120mg	M01AH05	Oral	60	mg
	Parecoxib injection	40mg/2ml	M01AH04	Parenteral	40	mg

Abbreviation: ATC, anatomical therapeutic chemical; DDD, defined daily dose; WHO, World Health Organization; mg, milligram; ml, millilitre.

Supplementary Table 3 Interpretation of utilization among types of surgeries

	Arthroscopy	Reconstructive	Fixation	Overall
Dexketoprofen injection				
Percentage of patient admitted might get in 2018	13.58	0	8.57	10.60
Appropriateness of clinical application	Yes	NA	Yes	Yes
Diclofenac sodium tablet injection				
Percentage of patient admitted might get in 2018	2.31	2.94	1.43	2.05
Appropriateness of clinical application	Yes	Yes	Yes	Yes
Celecoxib capsule				
Percentage of patient admitted might get in 2018	59.26	229.41	40.00	67.18
Appropriateness of clinical application	Yes	Yes	Yes	Yes
Etoricoxib tablet				
Percentage of patient admitted might get in 2018	26.39	132.35	88.57	57.95
Appropriateness of clinical application	Yes	No	No	No
Parecoxib injection				
Percentage of patient admitted might get in 2018	392.59	376.47	387.14	389.23
Appropriateness of clinical application	No	Yes	No	No

Abbreviation: NA, not applicable.