Supplemental Table 1. Baseline characteristics of included, missed by physician, unreachable, refused to participate, and lost to the 14-day follow-up patients.

Baseline characteristics	Missed by physician (N=1,652)	Unreachable (N=1,661)	Refused to participate (N=1,782)	Lost to follow-up (N=350)	Included patients (N=2,240)
Mean (±SD) age	50.0 (17.7)	45.8 (15.8)	52.6 (17.8)	49.8 (17.5)	50.5 (15.5)
Female (%)	50.3	48.7	51.1	50.0	48.2
Mean (±SD) pain intensity (0-10 scale) at triage	7.2 (2.1)	7.2 (2.3)	7.0 (2.3)	7.1 (2.3)	7.1 (2.2)
Type of pain conditions (%)					
-Renal colic	14.6	15.9	14.4	12.0	19.1
-Fracture	22.5	18.7	21.9	19.2	23.7
-Back pain	11.7	18.3	16.5	22.9	16.7
-Neck pain	2.4	3.0	2.9	2.6	2.9
-Musculoskeletal	15.3	20.6	21.3	19.5	18.5
-Abdominal pain	13.1	10.3	8.2	8.3	7.4
-Other	20.4	13.2	14.8	15.5	11.7
Treated with opioid within the ED stay (%)	65.1	62.6	56.7	64.2	60.0
Median (Q1-Q3) ED stay (hours)	5.4 (3.5-7.9)	5.8 (3.8-8.8)	5.8 (3.8-8.6)	5.7 (3.8-8.6)	5.7 (3.9-8.5)

SD: Standard deviation Q1-Q3: first and third quartile

## Supplemental Table 2. Other baseline characteristics of included patients.

Baseline characteristics	Included patients (N=2,240)
Ethnicity (%) -White -Middle Eastern/North African -Black -Hispanic/Spanish/Latino -Asian/Indian -First Nations	76.7 10.5 5.5 3.8 1.7 0.6
-Other*  Preferred language (%)  -French -English	85.6 14.4
Education (%) -Primary school -High school -College -University	2.7 29.6 28.6 39.1
Annual income of your household before taxes (%) -0 - 24 999 \$ -25 000 \$ - 49 999 \$ -50 000 \$ - 69 999 \$ -70 000 \$ - 99 999 \$ -100 000 \$ - 499 999 \$ -500 000 \$ or more	11.8 24.6 16.9 18.3 27.8 0.6

<sup>\*</sup>Data not available for specific ethnicities of patients who selected the "other" category

Supplemental Table 3. Opioid prescribed and consumed across sex and age during the two-week follow-up.

Opioid prescribed and consumed	Sex		Age	
-	Male	Female	< 65	≥ 65
Number of patients	1161	1079	1802	438
Filled opioid prescription (%)	93.0	92.2	92.7	92.0
Filled additional opioid prescription (%)	10.0	11.6	11.3	8.4
Median (Q1-Q3) number of morphine 5 mg tablet equivalents prescribed	16 (12-24)	15 (10-20)	16 (12-23)	16 (10-20)
Median (Q1-Q3) number of morphine 5 mg tablet equivalents consumed (7 d)	4.0 (1-11)	4.5 (1-11)	4 (1-11)	4.5 (1-11)
Median (Q1-Q3) number of morphine 5 mg tablet equivalents consumed (14 d)	4.5 (1-13)	5.0* (1-13)	4.8 (1-13)	4.8* (1-12)
Percentage of morphine 5 mg tablet equivalents unused (14 d)	62.6	63.2	63.2	61.6

Q1-Q3: first and third quartile; \*Not statistically significant.

Supplemental Table 4. Main outcomes across the different hospital sites.

Main outcomes	Quebec	Quebec	Ontario
	tertiary	community	tertiary
	sites*	site*	sites*
Filled opioid prescription (%)	92.9	91.7	90.6
Median (Q1-Q3) number of morphine 5 mg equivalent prescribed	16	15	13
	(12-24)	(10-20)	(10-16)
Median (Q1-Q3) number of morphine 5 mg equivalent consumed (7 d)	4	3	3
	(1-11)	(0-9)	(0-9)
Median (Q1-Q3) number of morphine 5 mg equivalent consumed (14 d)	5	4	3
	(1-15)	(1-12)	(0-11)

Q1-Q3: first and third quartile.

<sup>\*</sup>Quebec tertiary sites: Sacré-Coeur de Montréal, Maisonneuve-Rosemont, Enfant-Jésus hospitals; Quebec community site: Jean-Talon hospital; Ontario tertiary sites: Ottawa, London-Victoria, Sunnybrook Health Sciences Centre hospitals.