Box 2

Calculate the dose of breakthrough diamorphine when on a fentanyl patch and continuous SC infusion (CSCI) diamorphine

Step 1: Calculate breakthrough diamorphine dose for the fentanyl patch
Formula: Strength of fentanyl patch (μg/h) / 5 = breakthrough dose of SC diamorphine (mg)
Alternatively, consult the manufacturer's data sheet.
example:

75μg/h fentanyl / 5 = 15mg diamorphine SC prn

Step 2: Calculate breakthrough dose for the diamorphine CSCI
Formula: 24-hour opioid dose (mg) / 6 = breakthrough dose (mg)
example:

35mg diamorphine per 24 hours / 6 = 6mg (approx) diamorphine SC prn

Step 3: Add the two breakthrough doses together to obtain correct breakthrough dose for total 24-hour opioid dose
example:

Routine 24-hour opioid dose	Breakthrough dose of SC diamorphine
Fentanyl 75μg/h patch	15mg (75 / 5) diamorphine
35mg SC diamorphine	6mg (35 / 6) diamorphine

Breakthrough dose of SC diamorphine = 20mg (15mg + 6mg, rounded down)