

Marks
2

- Assuming aspirin has a half life of around 3 hours in the body, how much of an 80 mg dose will still be in the body after 1 day?

The amount of aspirin halves every 3 hours.

If the initial amount is 80 mg, there will be 40 mg after 3 hours. It continues to halve every 3 hours.

time / hours	amount / mg
0	80
3	40
6	20
9	10
12	5
15	2.5
18	1.25*
21	0.625*
24	0.3125*

The initial dose of 80 mg was only measured to 1 significant figure and so the answer is also only known to this level of accuracy. There is 0.3 mg left after 1 day.

*** To avoid rounding errors, these numbers are given in full and the rounding to 1 significant figure is left until the end.**

Answer: **0.3 mg**