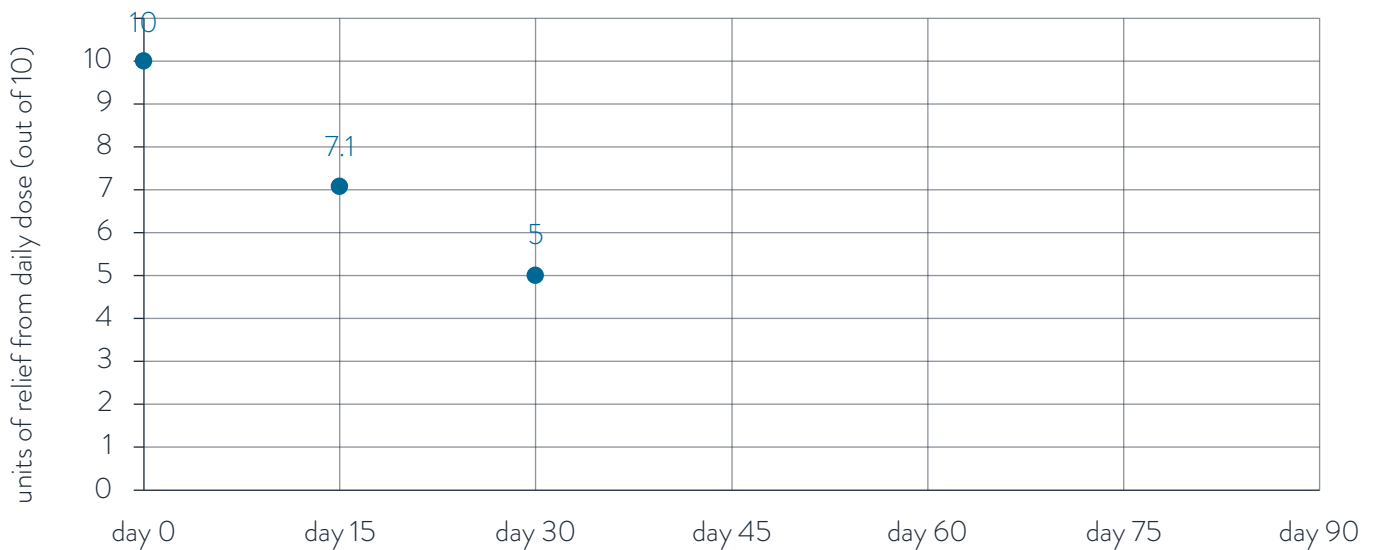


## Part One: Take One of These

- When someone is injured or has surgery, the doctor may prescribe a medication for pain. Some of the most common pain medications are opioids, which include drugs like Norco, Percocet, Vicodin, and OxyContin.

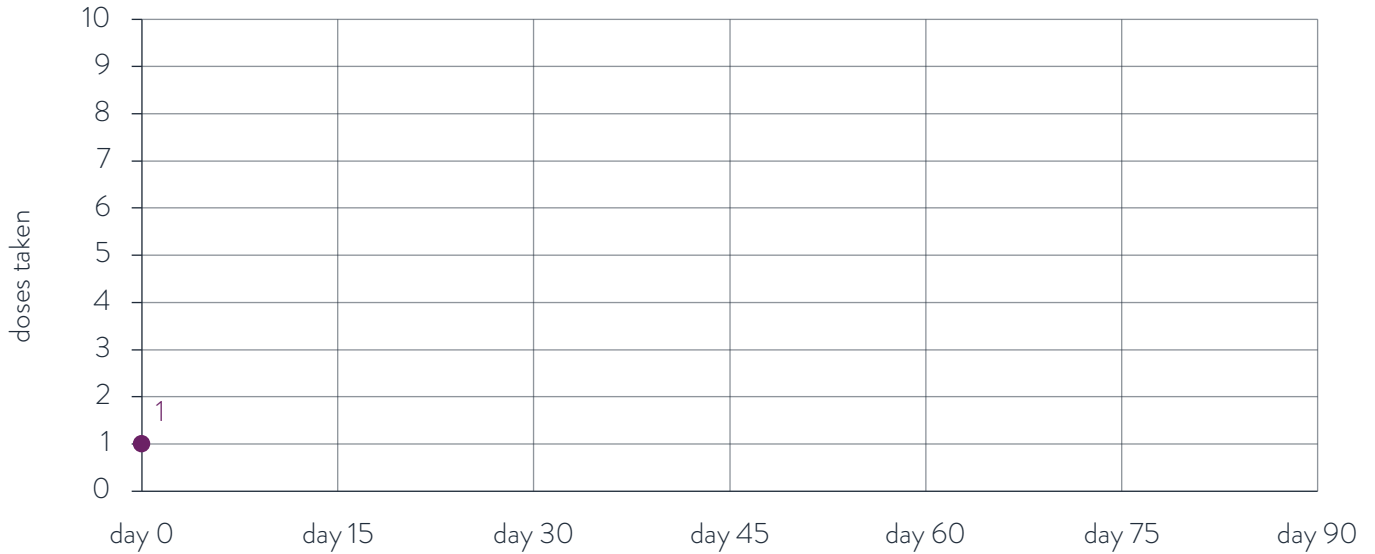
Imagine someone hurts their back and is prescribed a daily dose of Norco. The points below show how much pain relief they get from this amount on day 0, day 15, and day 30 (where 0 = no relief and 10 = complete relief). How is the effectiveness of the daily dose changing over time, and why might this be happening?



- For the patient above, write and graph an equation for the pain relief they get from a daily dose of Norco over time. How much relief would they get on day 60, and how do you expect they'd respond? Explain.

## Part Two: Please Call Me in the Morning

- 3 Even when a doctor prescribes a specific dosage of a medication, patients will often take more if they're still in pain. Sketch how many doses of Norco our patient would take each day if they wanted to be pain-free. If the doctor only wrote a prescription for 60 days' worth of medication, what do you expect the patient will do when they run out?



- 4 While opioids can help relieve pain, they have a dangerous side-effect: If a body has too much, it can stop breathing. For years opioids were given mostly to cancer patients, but in the 1990s pharmaceutical companies started urging doctors to give them to more people. Many became addicted, and many of *them* turned to more powerful opioids like heroin and fentanyl. Today, accidental overdoses are the leading cause of death of Americans under 50.

a. Who do you think is most responsible for starting the crisis: drug companies, doctors, or patients?

b. Who do you think should be responsible for ending the opioid crisis? Explain.