**Home work file:**

**Questions:**

1. What is the total number of units utilized/administered (how much was used) in each month for each

medication across all patients?

2. How many patients received Med A in each month from July to Nov? Med B?

3. What’s the average total monthly dose per patient for each medication in each month (July to Nov)?

4. In each month separately (September, October, and November) and also all together across these 3

months, how many patients are switched from Med A to Med B? In each month separately (Sept, Oct,

Nov), how many patients are started on Med B having not been on Med A before?

5. In each month separately (September, October, and November) and across all 3 months, for patients

switched to Med B, what is the average number of weeks the patients were on Med A before being

switched to Med B? (see time on medication definition below)

6. What is the average total monthly dose per patient per month (in patients that switched) of Medication

A before switching to Medication B (use time from question 5)? What is the average total monthly dose

per patient per month of Medication B (in patients that switched – assume Med B dose is for 1 month)?

7. If Medication A cost $1 for 100 units, what is the breakeven price point for Medication B (per unit of B)?

8. How much does the average total monthly dose per patient (Medication A and B) change for patients

switched September vs October vs November?

9. In patients that were switched to Med B, what percent of the 2nd Med B dose (total dose in month

following 1st dose) was the same as the 1st Med B dose? Higher than the 1st dose? Lower than the first

dose (but not a zero dose)? No dose at all (a zero dose)? (calculate for patients switched in September

only, October only, and Sept and Oct together, assume Med B dose is for 1 month only)

10. For patients that switch from Med A to Med B (question 4), what’s the average LAB B value for these

patients when they were on Med A? Med B?

11. Assume that more of medication A and B is generally associated with higher LAB B values. How does

your answer to question 9 and 10 impact the breakeven price point?

**Background notes:**

• XYZ client currently uses Medication A in all their patients and is considering a switch to Medication B. A

critical part of the evaluation of Medication B is how much of Medication B would be used in the XYZ

client’s patients. A trial of Medication B was conducted. The data in the excel file encompasses roughly

130 patients with data at least 2 months before switching medications and up to 3 months on the new

medication.

• Patients can be on medication A or medication B or neither medication, but not both medications at the

same time

• Medication B is given less frequently (~1/month) than Medication A

• The units of Medication A and Medication B are different and are not interchangeable or able to be

converted from one to another

• For time on medication, assume the patient is “on” Med A from the first recorded date of Med A

administration until the last recorded date of Med A administration

• Assume a week is 7 days and a month is 4.33 weeks

**General Guidelines**

• If you get stuck on a question, feel free to move onto another question (although many build on the prior

question). It’s ok to not get all the answers. Don’t feel pressured to try to answer all the questions,

especially if it’s taking up more of your time than you wanted to spend on the exercise.

• Consolidate your answers on a separate summary tab with the excel file. Make it the first tab.

• Send back 1 excel file that shows how you got to the answers. Be sure to demonstrate the use of lookup

functions and pivot tables if you used them. Also, note roughly how much time it took to address each

question as well as total time spent.

• Feel free to graph a few of the questions within excel to demonstrate how you approach presenting

information graphically.

• Feel free to email with clarifying questions. Have fun!