Using the Workbook

This tool is formatted to automatically integrate the data you enter. It is comprised of four pages—one page each for EHR data and PMS data; a page that displays the integrated data set; and a "Front Page" that shows results for four metrics:

1. **Percentage of prescriptions dispensed.** Number of prescriptions dispensed divided by the number of prescriptions written.
2. **Timeliness of refill.** Average number of days between projected and actual date of refill.[1]
3. **Time to fulfillment (TTF).** Average (and median) number of days between date prescription was written and date it was dispensed to patient.[2]
4. **Medication Proportion Ratio (MPR).** The total number of daily units of medication dispensed to a patient divided by the total number of days the patient was on therapy.

The Front Page allows you to define a) the period of interest for any analysis (that is, the earliest and latest dates for which cases should be included) and b) the specific drug for which they you would like the last two metrics calculated (that is, timeliness of refill and medication proportion ratio).

Preparing Your Data

To populate the Workbook, you must first run reports from your EHR and PMS. These reports should be generated in the form of an Excel file (ideally) or other spreadsheet format (for example, CSV or tab-delimited files).

    The specific information needed to generate the metrics is shown below, as is the ordering of the information. If it is not possible (or easy) to arrange your EHR and PMS data in that order, you will need to cut and paste the data to get it into the necessary format. Note: To use this tool, cancer programs with integrated data should past the same data into both the EHR and PMS worksheets.

    While you do not have to include all values in your analysis, these values are key:

- **Script date**. Any "case" that does not have a value for this variable will not be included in any of the computations.
- **Date of Birth and Sex.** The "matching" of cases is done using these variables.
- **Drug.** Enter either brand or generic name; the workbook automatically converts when needed. However, drug names need to be consistent across sources. This means that *imatinib* will be converted to *Gleevec*® and vice versa but the Workbook will not read *imatinib* and *imat* as the same drug.

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[1] Both TTF and MPR require an estimate of the number of units per day. Consequently, the metrics are computed only for drugs where this number can be estimated from the labeled dosage. Drugs indicated for multiple conditions, with different doses recommended for each, are typically excluded. For example, the recommended dose of *sunitinib* for kidney cancer patients is 50 mg daily, whereas the corresponding dose for patients with neuroendocrine tumors is 37.5 mg.

[2] Computed only for "selected drugs"

Using the Workbook

When you open the file, you will be asked whether you would like to "enable macros." Click the left-most button that allows you to enable macros. The Workbook will then open to the Front Page. Now you can enter your EHR and PMS data.

The Front Page allows you to select start and end dates for the any analysis. It also has pull down menus for each of the last two metrics that lets you pick which drug you would like to review. If you do not enter values, the Workbook will include all cases.

The Summary Page is the integrated file. If you would like to analyze data on your own, copy the values from this page and "paste" them into another file. When doing so, use the "Paste Special" function in Excel and check the "Paste Values" item. This is necessary because the actual values in each cell are formulae rather than numbers.

Column	Variable Name	Variable Description
B	Script Date	The date physician/nurse prescribed the medication
C	Patient's Name	Patient's name
D	Date Of Birth	Patient's DOB
E	Patient ID	Program assigned patient ID
F	Sex	M/F
G	Patient's Address (Street Only)	Name of street
H	Drug Name (Brand)	If brand name drug prescribed
I	Drug Name (Generic)	Active ingredient/generic name
J	NDC	The national drug code number of the dispensed product
K	Strength	Strength of each unit (i.e., 1 mg, 50 mg)
L	Quantity	Number of units to be dispensed
M	Days Covered	Number of days of therapy covered by prescription
N	Fill Date	Date pharmacy prepared product
O	Dispense Date	Date product given to patient
P	Dispensing Agent	Internal ID (for internal use)
Q	Refills	Number of refills remaining
R	Diagnosis Code	Diagnosis code of condition for which drug was prescribed