

Celgene Marketing Dashboard User Guide & Documentation

Version 1.0

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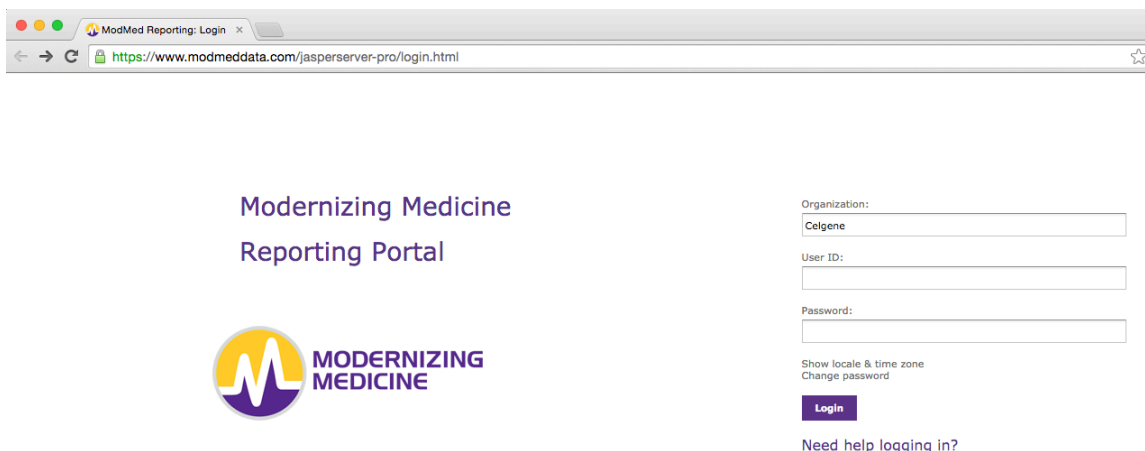
OVERVIEW

Modernizing Medicine has created an interactive Marketing Dashboard that provides up-to-date de-identified data from its Electronic Medical Assistant (EMA™) about patients with moderate-to-severe psoriasis, including demographics, seasonality, outcomes, comorbidities, prescription benchmarking, Otezla™ (apremilast) prescription and provider information, switch analysis, and treatment-naivety. This guide explains what the Marketing Dashboard can do and how to use it, including functions and data assumptions.

GETTING STARTED

Open your browser and go to [modmeddata.com](https://www.modmeddata.com). At the login page, you will be prompted to enter the following information:

- Organization: Celgene
- User ID: [firstname].[lastname]
- Password: [user's password]



Before the first login, you will need to login using a random password assigned by Modernizing Medicine, which you will be able to change before logging in by clicking “Change password.” If you have forgotten your password or cannot log in for any reason, click “Need help logging in?”

Note: [modmeddata.com](https://www.modmeddata.com) is only available from inside the Celgene network. Therefore, you will need to be at a Celgene office or connected to a Celgene VPN to login.

Modernizing Medicine Reporting Portal



Organization:
celgene

User ID:
celgene

Password:

Show locale & time zone
Cancel password change

New Password:

Confirm New Password:

Login

[Need help logging in?](#)

After logging in, you will see a list of available dashboards. Click “Library” at any time to return to the main menu.

Library				
Sort By: Name Modified Date				
Name	Description	Type	Created Date	Modified Date
Marketing Dashboard (01) Psoriasis Demographics		Dashboard	July 13	Today
Marketing Dashboard (02) Psoriasis Comorbidities		Dashboard	August 5	Today
Marketing Dashboard (03) Psoriasis Disease Severity		Dashboard	July 13	Today
Marketing Dashboard (04) Medication Overview		Dashboard	July 28	Today
Marketing Dashboard (05) Total Prescription Count by M...		Dashboard	August 24	Today
Marketing Dashboard (06) New Patients to Drug by Month		Dashboard	October 20	Today
Marketing Dashboard (07) Otezla Rx Analysis		Dashboard	August 11	Today
Marketing Dashboard (08) Otezla Provider Analysis		Dashboard	August 5	Today
Marketing Dashboard (09) Otezla Prescription/Switch An...		Dashboard	August 20	Today
Marketing Dashboard (10) Systemic Treatment-Naive Pat...		Dashboard	August 17	Today
Marketing Dashboard (11) Exploratory Analysis: Psoriasi...		Dashboard	September 11	Today

Click on a link to view a dashboard in the same tab in your browser, or right click and select “Run in New Tab” to view a dashboard in a new tab.

Library	
Name	
Marketing Dashboard (01) Psoriasis Demographics	Run
Marketing Dashboard (02) Psoriasis Comorbidities	Run in New Tab
Marketing Dashboard (03) Psoriasis Disease Severity	
Marketing Dashboard (04) Medication Overview	
Marketing Dashboard (05) Total Prescription Count by M...	
Marketing Dashboard (06) New Patients to Drug by Month	
Marketing Dashboard (07) Otezla Rx Analysis	
Marketing Dashboard (08) Otezla Provider Analysis	
Marketing Dashboard (09) Otezla Prescription/Switch An...	
Marketing Dashboard (10) Systemic Treatment-Naive Pat...	
Marketing Dashboard (11) Exploratory Analysis: Psoriasi...	

FEATURES

Panels


The Marketing Dashboard comprises the following 11 panels:


1. Psoriasis Demographics
2. Psoriasis Patient Comorbidities
3. Psoriasis Disease Severity
4. Psoriasis Medication Overview: Patient Demographics and Outcomes
5. Total Prescription Count by Month
6. New Patients to Drug by Month
7. Otezla Analysis
8. Otezla Provider Analysis
9. Otezla Prescription Sequence/Switch Analysis
10. Systemic Treatment-Naïve Patient Analysis
11. Exploratory Analysis: Psoriasis Seasonality

Each panel contains adjustable filters including age, gender, US state, race, ethnicity, active medications, etc. By adjusting these filters, you can customize what the graphs and charts show.

Filters

Some panels contain filters that allow you to specify which data will be visualized. Psoriasis patients can be filtered by date, age, gender, race, ethnicity, US state, drug category, and active medication.


Depending on your window size, some items may not be visible. Click and drag  to change the size of a filter to show a larger view.

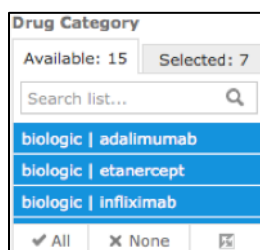
For the date filter, you can enter the start and end dates manually (yyyy-mm-dd) or click  to open a calendar popup.



start_date	end_date
2012-01-01	2015-08-24

Note: Data are always updated at end of day on *Fridays*, with data from the previous Friday. However, you can select any day of the week.

Note: The default end date is the current date. However, the data displayed will only be up until the "Date Updated" as indicated in the header box.

For all other filters, you can click the “Available” tab and scroll through the complete list of items. All items are selected by default. Simply click once to select an item and click again to deselect it. Selected items appear blue. You can select or deselect all items by pressing the “All” and “None” buttons, respectively, at the bottom of each filter. Furthermore, click  to invert your selection. For example, if only “male” is selected, clicking the invert button will select “female” and deselect “male.” To see all currently selected items, click the “Selected” tab. You can also search for an item using the “search list” below.



Click  at the bottom to apply all filters and generate an updated chart. Click  to reset all filters to the default settings.

Filter list

Age: 18–85 years

Gender:

- Male
- Female
- Unknown

States: 50 US states and the District of Columbia

Race:

- American Indian/Alaska Native
- Asian
- Black/African American
- Other Race
- Unknown Race
- White

Ethnicity:

- Hispanic or Latino
- Not Hispanic or Latino
- Unknown




Active Medication or Prescription (according to Celgene Market Definition Categorization V20.0; brand names are categorized as generics, all topical drugs are considered “topical,” and other drugs are considered “other”):

- Acitretin
- Adalimumab
- Apremilast
- Azathioprine
- Cyclosporine
- Cyclosporine modified
- Etanercept
- Infliximab
- Leflunomide
- Methotrexate
- Other
- Secukinumab
- Tofacitinib
- Topicals
- Ustekinumab

Logic

The logic filter can be Boolean “AND” or “OR;” the default is “OR.” The logic refers to the relationship between TBSA and PGA filters. The logic between physician and patient PGA filters is always OR. For example, selecting “OR,” entering “3” in “Max TBSA \geq ,” 4/5 for physician PGA, and 4/5 for patient PGA would display all patients with a max TBSA \geq 3 OR physician PGA 4/5 OR patient PGA 4/5.

Charts

Each chart can be customized. By clicking , you can change the type of display item. Please note, not all chart types will work for a given dataset. Moreover, by clicking , you can toggle a full screen view of any graph or chart. When in full screen view, click  to return to the panel. Mouse-over any data point to display the actual value. You can also click and drag to zoom in on a region of interest. Click “Reset room” in the top right corner to restore the original zoom of the chart.

When viewing line graphs, you can click the colored label of any item below the x-axis to remove the corresponding data from the chart and click it again to show the data.

HIPAA Compliance

In accordance with HIPAA and to maintain patient confidentiality, the message, “The report is empty” will be displayed if there are less than 10 patients. If this occurs, try adjusting the filters to include more patients. In addition, patients aged ≥ 85 years are grouped together.

DASHBOARD PANELS

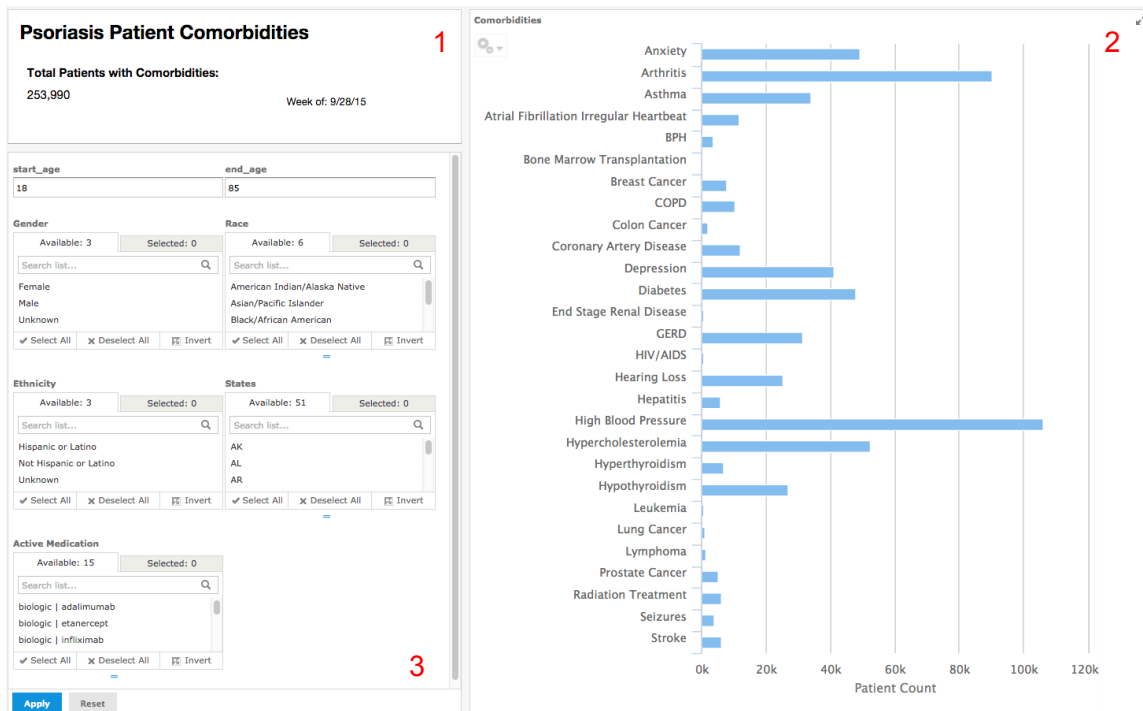
1. Psoriasis Demographics Panel



In this panel, you can visualize the demographic data of psoriasis patients according to age, US state, race, ethnicity, and gender.

1. Psoriasis Demographics: Displays the total number of patients >18 years old with a diagnosis of psoriasis in EMA along with the date of the most recent update.
2. Total patient count by month
3. New patient count by month
4. Unique patients with psoriasis by age
5. Unique patients with psoriasis by gender
6. Unique patients with psoriasis by race
7. Unique patients by state
8. Unique patients with psoriasis by ethnicity

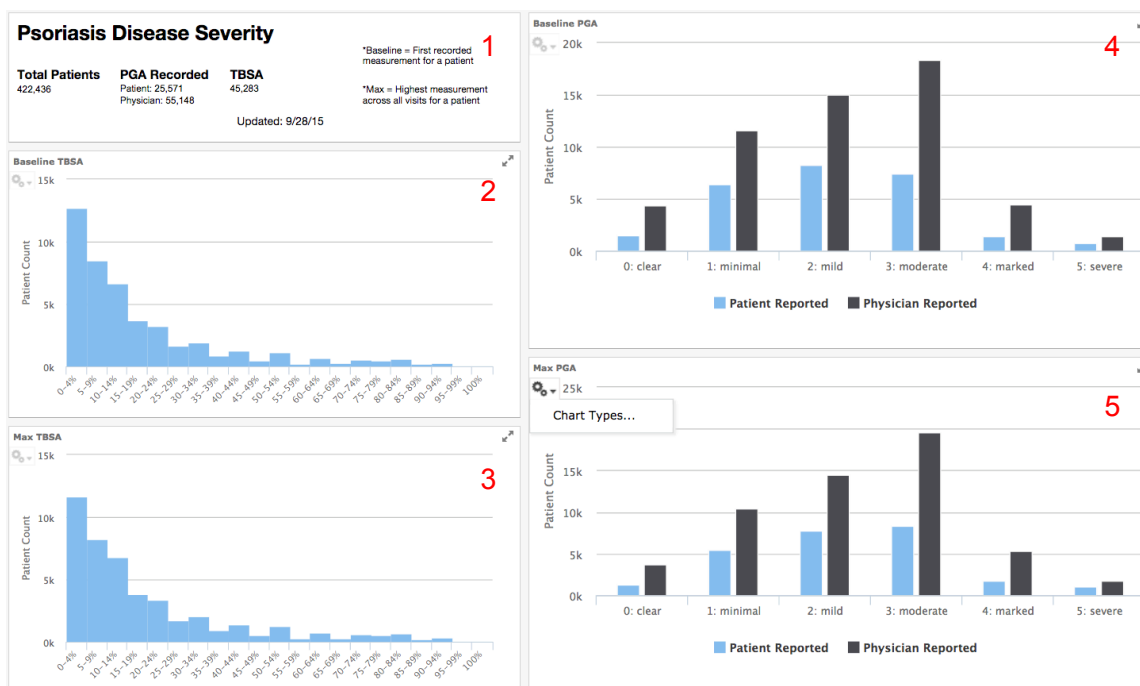
2. Psoriasis Patient Comorbidities Panel



In this panel, you can visualize the comorbidities of psoriasis patients. By changing the filters in the left panel, you can visualize comorbidities for different sets of patients.

1. Patient filters
2. Comorbidities: Displays the filtered data by comorbidity. BPH: benign prostatic hyperplasia, COPD: chronic obstructive pulmonary disorder, GERD: gastroesophageal reflux disease.
3. Filters

3. Psoriasis Disease Severity Panel



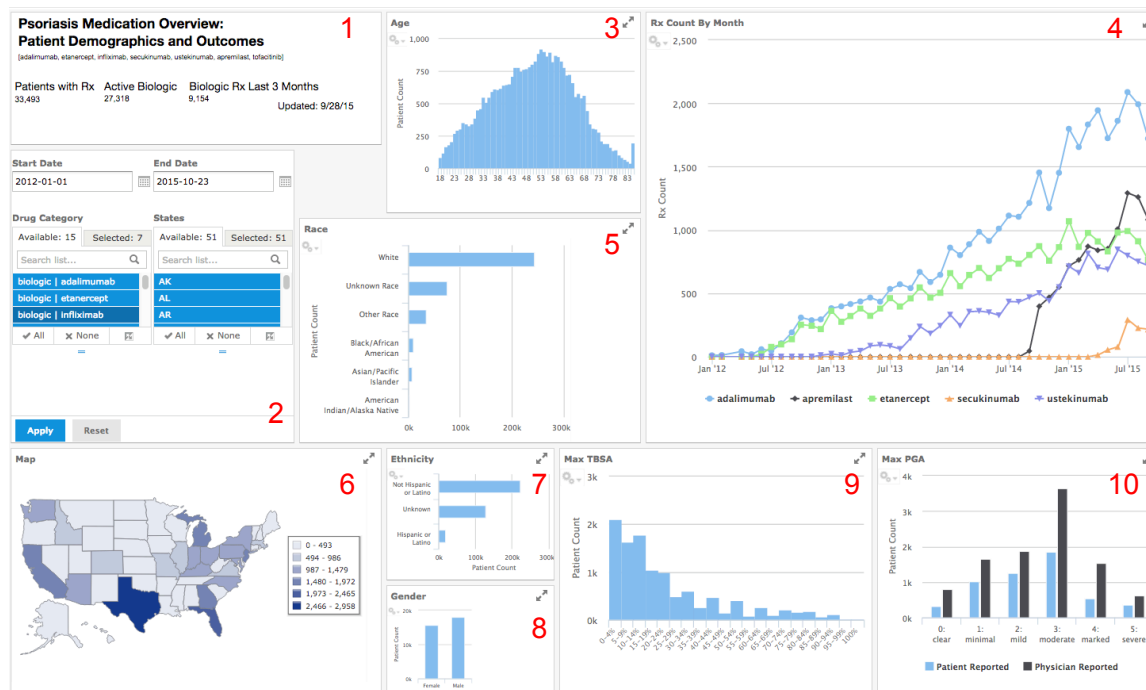
In this panel, you can visualize patient outcomes related to psoriasis, including total body surface area (TBSA) and patient/physician global assessment (PGA).

1. Psoriasis Patient Outcomes
 - Total Patients: Total psoriasis patients in EMA
 - PGA Recorded: Number of patients with any patient- or physician-reported outcome
 - TBSA Recorded: Number of patients with any TBSA recorded
2. Unique psoriasis patients by baseline* TBSA**
3. Unique psoriasis patients by max* TBSA
4. Unique psoriasis patients by baseline PGA
5. Unique psoriasis patients by max PGA

*Baseline refers to first recorded measurement in EMA, and max refers to the highest recorded measurement (i.e., the most severe outcome) at any time.

**TBSA is binned in groups of 5, so the label "0" refers to a TBSA from 0–4%, label "5" refers to TBSA 5–9%, etc.

4. Psoriasis Medication Overview: Patient Demographics and Outcomes Panel



In this panel, you can visualize the numbers, demographics, and outcomes of psoriasis patients by medication. Prescription counts and patient populations are drawn from prescriptions and not medication lists. Display items show relevant information on the patients with a prescription for the selected drug(s), in the selected state(s), and within the selected date range (see 2 below).

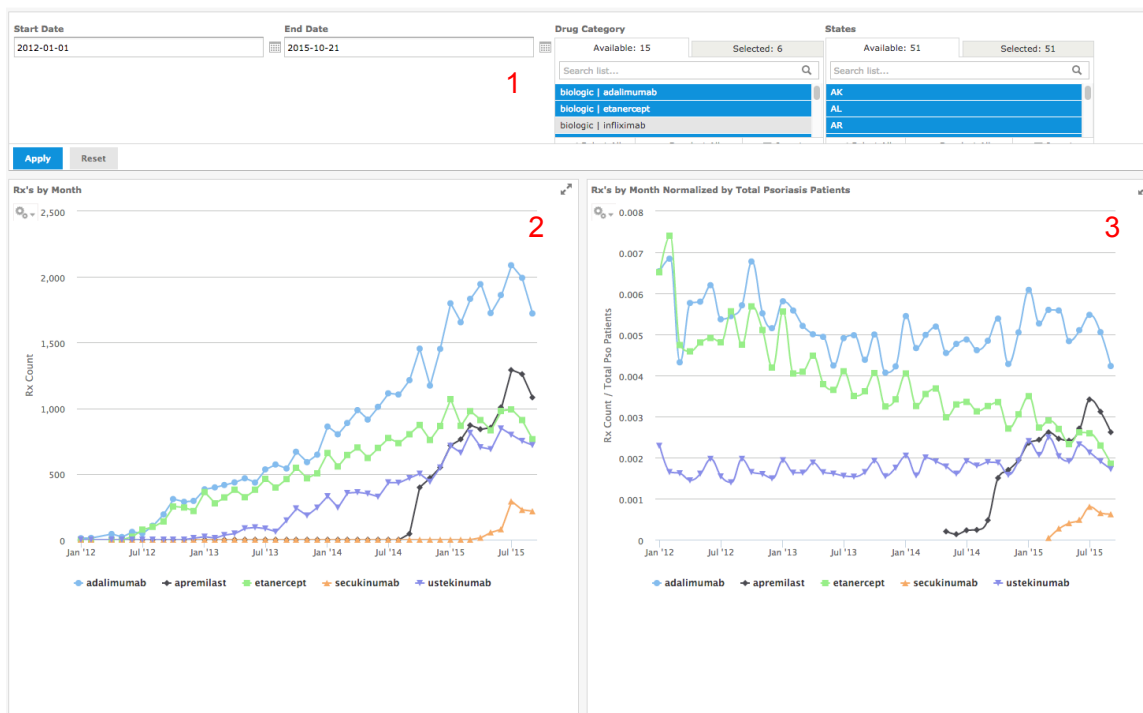
1. Psoriasis Medication Analysis
 - Patients with Rx: Total number of patients with a prescription for the selected drug(s), in the selected state(s), within the selected date range
 - Active Biologic: Number of patients with a *biologic* medication active in their medication list among the “Patients with Rx” shown to the left
 - Biologic Rx Last 3 Months: Number of patients with a biologic *prescription* in the last 3 months among the “Patients with Rx” shown to the left
2. Filters
3. Age range of psoriasis patients
4. Rx Count by Month: Shows the numbers of prescriptions written for each drug according to the filters (2). Please note that the data are the raw prescription counts of each drug and do not take into account dosage, quantity, or refills. In addition, the data do not account for the growth of the number psoriasis patients as shown in the “Psoriasis Demographics” Panel (page 8). Please refer to the “Rx Count by Month” Panel (page 14) for normalized prescription counts per month.
5. Race of psoriasis patients
6. Geographic distribution of psoriasis patients
7. Ethnicity of psoriasis patients
8. Gender of psoriasis patients
9. Max* TBSA** of psoriasis patients

10. Max* PGA of psoriasis patients

*Max refers to the highest recorded measurement (i.e., the most severe outcome) at any time.

**TBSA is binned in groups of 5, so the label “0” refers to a TBSA from 0–4%, label “5” refers to TBSA 5–9%, etc.

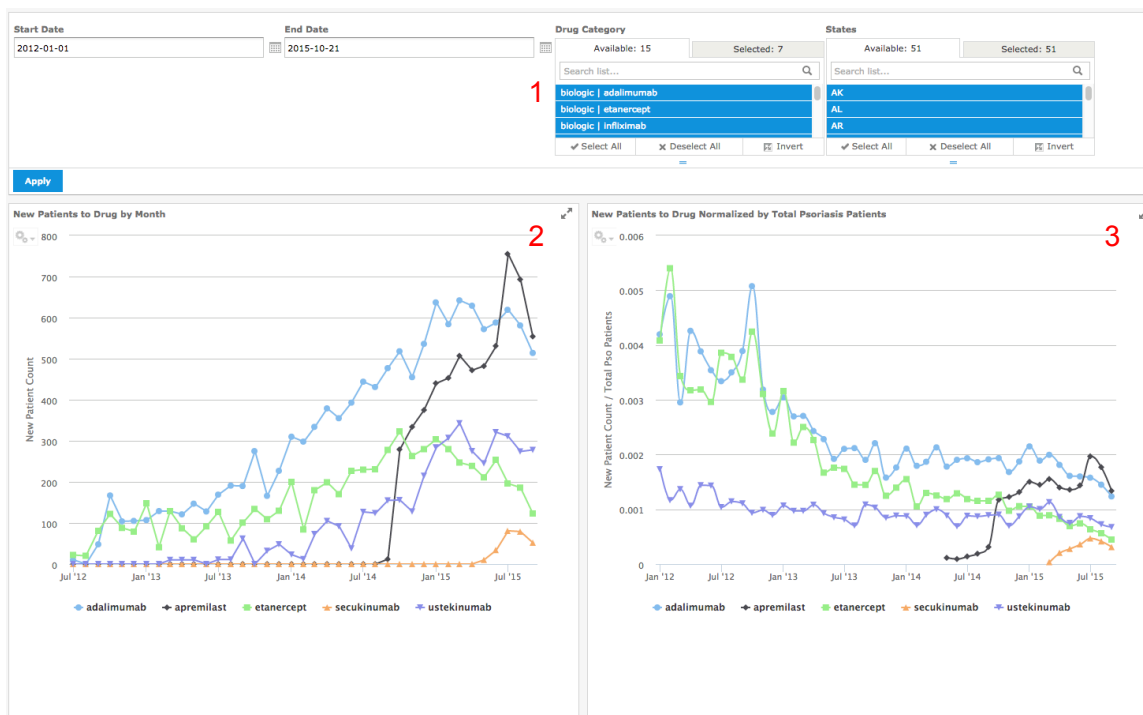
5. Total Prescription Count by Month Panel



This panel is related to the Psoriasis Medication Overview Panel explained above, but shows an expanded view of the number of prescriptions per month as well as the numbers of prescriptions per month normalized by the total number of psoriasis patients.

1. Filters
2. Rx by Month: Numbers of prescriptions by month
3. Rx by Month Normalized by Total Psoriasis Patients: Numbers of prescriptions of selected drugs per psoriasis patient. The data are the total numbers of prescriptions for the given drugs within a given month divided by the total number of psoriasis patients in EMA for that month.

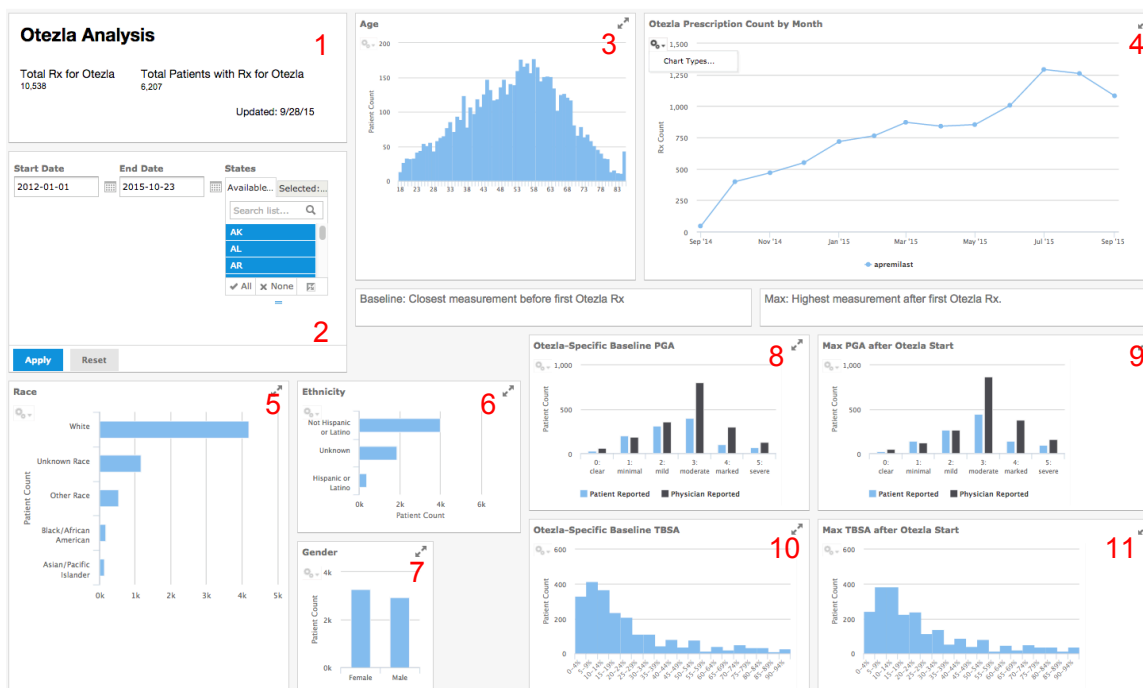
6. New Patients to Drug by Month Panel



This panel is related to the Psoriasis Medication Overview Panel explained above, but shows an expanded view of the numbers of new patients on drugs per month as well as the numbers of new patients on drugs per month normalized by the total number of psoriasis patients.

1. Filters
2. New Patients to Drug by Month: Numbers of new patients on selected drugs by month
3. New Patients to Drug Normalized by Total Psoriasis Patients: Numbers of new patients on selected drugs per psoriasis patient. The data are the total numbers of new patients on the given drugs within a given month divided by the total number of psoriasis patients in EMA for that month.

7. Otezla Analysis Panel



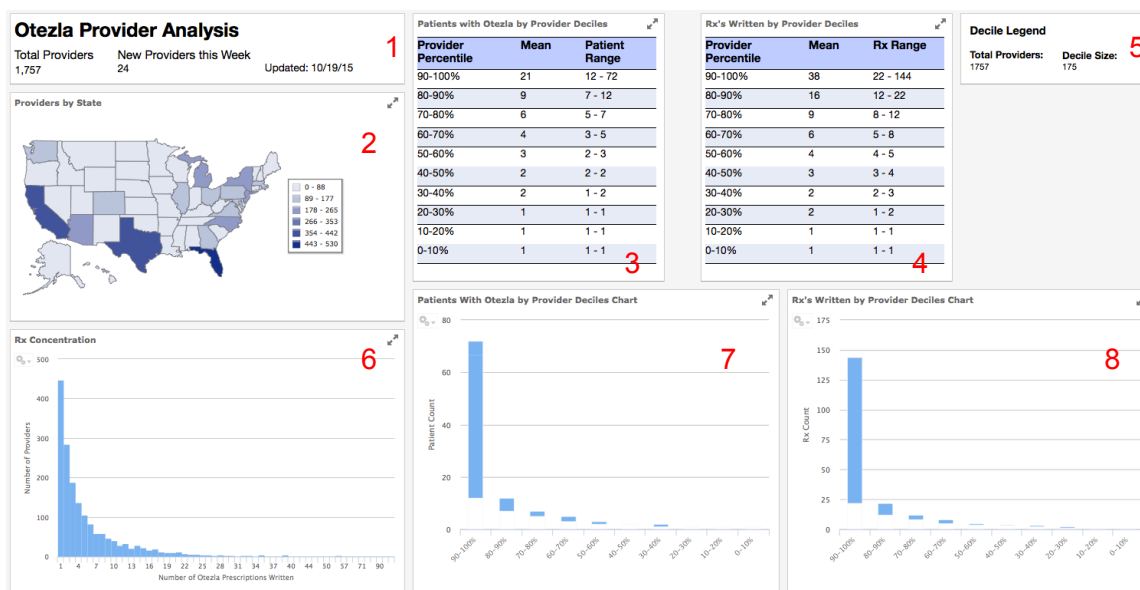
In this panel, you can visualize data specifically for psoriasis patients prescribed Otezla.

1. Otezla Analysis
 - Total Rx for Otezla: Total number of Otezla prescriptions
 - Total Patients with Rx for Otezla: Total number of patients with a prescription for Otezla
2. Filters
3. Age of psoriasis patients with a prescription for Otezla
4. Number of Otezla prescriptions per month
5. Race of psoriasis patients with a prescription for Otezla
6. Ethnicity of psoriasis patients with a prescription for Otezla
7. Gender of psoriasis patients with a prescription for Otezla
8. Baseline* PGA of psoriasis patients with a prescription for Otezla
9. Max* PGA of psoriasis patients with a prescription for Otezla
10. Baseline* TBSA** of psoriasis patients with a prescription for Otezla
11. Max* TBSA** of psoriasis patients with a prescription for Otezla

*Baseline refers to the closest measurement before a patient's first Otezla prescription, and max refers to the highest recorded measurement (i.e., the most severe outcome) after a patient's first Otezla prescription.

**TBSA is binned in groups of 5, so the label "0" refers to a TBSA from 0–4%, label "5" refers to TBSA 5–9%, etc.

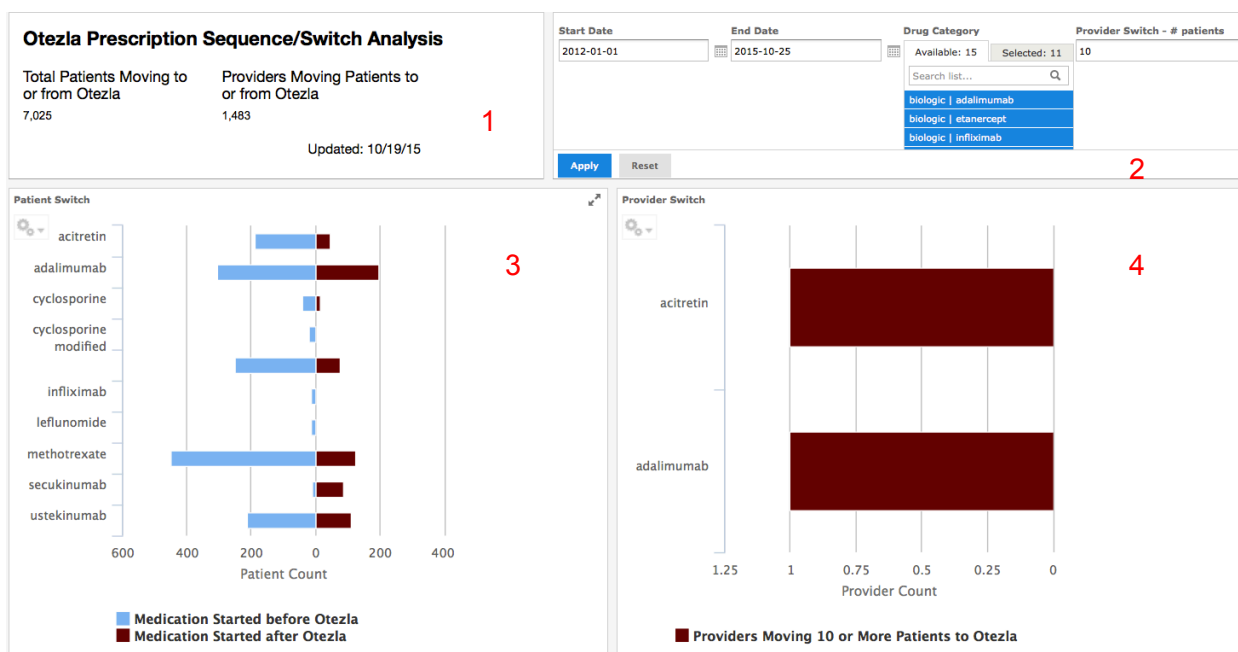
8. Otezla Provider Analysis Panel



This panel provides information about the providers prescribing Otezla. A “provider” is defined as any individual physician, physician assistant, or nurse practitioner. Therefore, individual providers within the same practice are counted separately.

1. New providers this week: Number of new providers prescribing Otezla for the first time; this includes providers new to EMA. Total provider count: Total number of providers who have ever prescribed Otezla.
2. Total number of providers by US state
3. Patient Count Deciles: Percentiles of providers by number of unique patients prescribed Otezla, with means and ranges in each decile.
4. Rx's Written by Provider Deciles: Percentiles of providers by number of Otezla prescriptions, with means and ranges in each decile.
5. Decile Legend: Total number of providers who have prescribed Otezla and how many providers are in each decile.
6. Rx Concentration: Histogram of the numbers of providers according to how many Otezla prescriptions they have written.
7. Patients with Otezla by Provider Deciles Chart: Ranges of patients by decile shown in 3.
8. Rx's Written by Provider Deciles Chart: Ranges Otezla prescriptions by decile shown in 4.

9. Otezla Prescription Sequence/Switch Analysis Panel

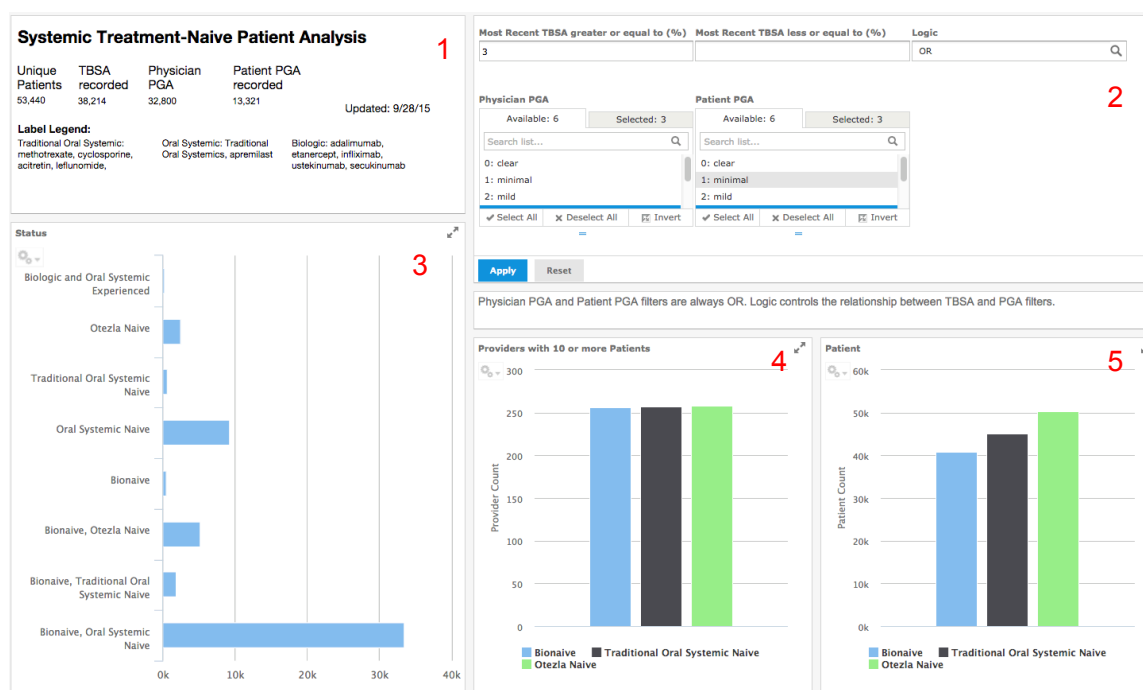


This panel shows the numbers of patients and providers moving to and from Otezla. A “provider” is defined as any individual physician, physician assistant, or nurse practitioner. Therefore, individual providers within the same practice are counted separately.

Note that the data indicate patients starting medications *before* and *after* Otezla and do not necessarily indicate discontinuation, i.e., certain medications may be prescribed in combination with Otezla. However, patients moving to Otezla or from Otezla to another drug that cannot be taken in combination with Otezla can be considered to have switched.

1. Total Patients on Otezla: Shows the total number of patients for whom Otezla is listed as an “active” medication. Providers Prescribing: Shows the number of providers prescribing Otezla.
2. Filters: Provider Switch - # is the minimum number of patients switched to or from Otezla for an individual provider; this affects the chart in 4.
3. Patient Switch: Shows the numbers of patients moving to and from Otezla. This chart looks at the start date of Otezla. If a patient is prescribed a drug *before* the Otezla start date, they are considered to have *moved to* Otezla; if a patient is prescribed a drug *after* the Otezla start date, they are considered to have *moved from* Otezla.
4. Provider Switch: Shows the numbers of providers moving 1 or more patients to and from Otezla. This chart looks at the start date of Otezla. If a patient is prescribed a drug *before* the Otezla start date, they are considered to have *moved to* Otezla; if a patient is prescribed a drug *after* the Otezla start date, they are considered to have *moved from* Otezla. This chart is affected by “Provider Switch - #” in 2.

10. Systemic Treatment-Naïve Patient Analysis Panel



This panel shows the numbers of psoriasis patients according to the drugs they have *not* been prescribed (i.e., naïve). Drug groups include biologics, traditional oral systemics (oral systemics not including Otezla), and oral systemics (traditional oral systemics + Otezla). All PGA and TBSA values are the most recent measurement(s) in EMA.

1. Bionaive Pipeline Analysis:

- Unique patients: Total number of psoriasis patients in EMA
- TBSA recorded: Number of patients with any TBSA measurement
- Physician PGA: Number of patients with any physician-reported PGA
- Patient PGA recorded: Number of patients with any patient-reported PGA

Groups:

- Traditional oral systemic: methotrexate, cyclosporine, acitretin, leflunomide, and tofacitinib
- Oral systemic: methotrexate, cyclosporine, acitretin, leflunomide, tofacitinib, AND apremilast
- Biologic: adalimumab, etanercept, infliximab, ustekinumab, and secukinumab

2. Filters: The logic filter can be Boolean “AND” or “OR;” the default is “OR.” The logic refers to the relationship between TBSA and PGA filters. The logic between physician and patient PGA filters is always OR. For example, selecting “OR,” entering “3” in “Max TBSA >=,” 4/5 for physician PGA, and 4/5 for patient PGA would display all patients with a max TBSA \geq 3 OR physician PGA 4/5 OR patient PGA 4/5.

The most recent outcome measure is used. If a filter is left empty or no items are selected, it will not be included in the query. For example, when no filters are selected, *all* psoriasis patients will be included; once an outcome measurement is selected, the total number of patients included will drop substantially.

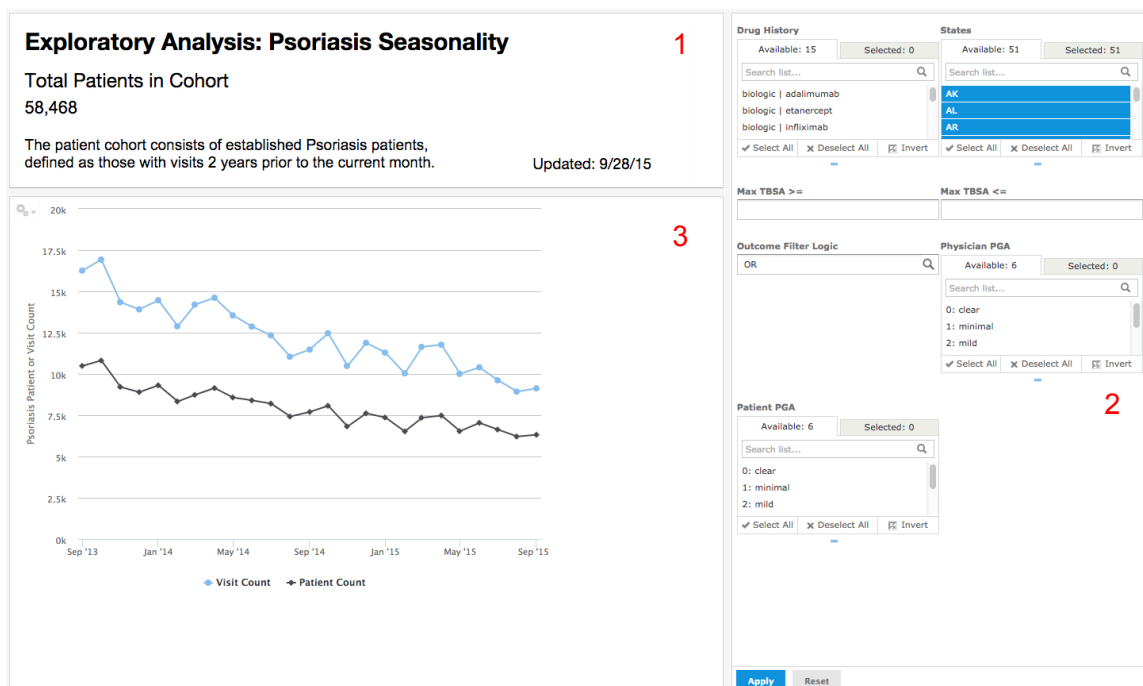
3. Naïve Patient Status: Shows the numbers of patients according to drug category naivety

- Bionäive: patients who have never been on a biologic (see 1)
- Traditional oral systemic naïve: patients who have never been on a traditional oral systemic (see 1)
- Otezla naïve: patients who have never been on Otezla

Note that all groups are mutually exclusive. For example, “biologic and oral systemic experienced” means a patient has experience with a traditional oral systemic, Otezla, AND a biologic; “bionäive, Otezla naïve” means experience with a traditional oral systemic but NOT a biologic or Otezla.

4. Providers with 10 or more patients: Shows the numbers of providers with 10 or more patients who meet the criteria for Otezla but whose patients are bionäive, systemic naïve, or Otezla naïve.
5. Patients: Shows the number of patients who are bionäive, traditional oral systemic naïve, or Otezla naïve (see 1).

11. Exploratory Analysis: Psoriasis Seasonality



In this panel, you can visualize the seasonality of psoriasis, i.e., the numbers of patient visits for psoriasis as well as patient counts.

1. Assumptions: Only patients from 2 years prior (i.e., NOT new patients) are shown; this is to ensure patients have had at least 1 visit in the past.
2. Filters: Drug history refers to a given drug being prescribed at any time. Outcomes (TBSA and PGA) refer to any outcome in the 2-year period. The logic filter can be Boolean “AND” or “OR;” the default is “OR.” The logic refers to the relationship between TBSA and PGA filters. The logic between physician and patient PGA filters is always OR. For example, selecting “OR,” entering “3” in “Max TBSA >=,” 4/5 for physician PGA, and 4/5 for patient PGA would display all patients with a max TBSA ≥ 3 OR physician PGA 4/5 OR patient PGA 4/5.
3. Numbers of psoriasis patient visits and patient counts by month

TROUBLESHOOTING

Cannot access modmeddata.com web page

Verify that you are connected to a Celgene office or VPN network. The modmeddata.com website is inaccessible through the general Internet.

“Invalid credentials supplied/Could not login” error message

1. Ensure that the Organization field contains “Celgene” when entering your credentials. If the Organization field is unavailable, navigate to or reload modmeddata.com. The Organization field should then appear on the login page.
2. When your account was created, you were provided a random login password. If you have not changed your password since, try logging in with that password. Otherwise, contact your Modernizing Medicine account manager to request a password reset.

Chart items are missing

On dashboard panels with filters enabled, charts will not show data points that represent less than 10 patients in compliance with HIPAA. For example, in the (04) Medication Analysis Panel, when the date range is limited “2012-01-01” and “2012-10-01,” results for certain drugs at certain time points disappear from the “Rx Count by Month” panel. This does not mean there were no prescriptions written during that period for these drugs, only that there are less than 10 patients represented in the missing group.

“The report is empty” message for charts

Similar to the above scenario, if all data points in a chart represent less than 10 patients, that chart will not render at all, resulting in the “Report is empty” message. Try changing or resetting the filter values to reload the charts.

“An unexplained error has occurred and the operation failed” message for charts

If most charts on a dashboard panel render, but one or more show the message “An unexplained error has occurred and the operation failed,” try refreshing the browser page. The page may need to be refreshed a few times before all charts load.

GLOSSARY

Active medication: An active medication is defined as drug listed as active on the patient's medication list.

PGA: physician/patient global assessment. An overall assessment of the patient's condition. Scores range from 0–5 as follows: 0, clear; 1 minimal; 2, mild; 3, moderate; 4, marked; 5, severe.

Provider: an individual physician, physician assistant, or nurse practitioner.

TBSA: total body surface area. Expressed as the percentage (%) of skin affected.