COVID-19 Weekly Trend Insights

Data Week Ending April 3rd, 2020
Compiled on April 9th, 2020
Summary of Insights for Week Ending 4/3/2020

- Latest Timeline on COVID-19 Pandemic
- U.S. State Trends for Reported Cases
- Patient Visits: Telemedicine vs. In-Person
- Updates on Key COVID-19 Markets
  - Highlight: Antimalarial Demand and Impact to Lupus Patients
- Impact of COVID-19 on Other Markets
- Channel Analysis: Retail vs. Mail Order
- Overall Trends in Payer Rejection Rates and Patient Abandonment
Timeline: Latest COVID-19 Developments

March 25th:
The White House and Senate leaders reach an agreement on a $2 trillion stimulus deal (CARES Act*) to offset the economic damage of coronavirus

March 30th:
FDA authorizes anti-malarials for emergency use despite limited evidence as a viable COVID-19 treatment

March 18th:
The Trump administration quietly invoked the Defense Production Act (DPA) to force medical suppliers in Texas and Colorado to sell to the federal government first—ahead of states, hospitals and foreign countries.

March 27th:
Trump signs the CARES Act* stimulus package into law

April 2nd:
6.6 million U.S. workers file for their first week of unemployment benefits week ending March 28th, the highest number of initial claims in history.

Globally, the total number of coronavirus cases surpasses 1 million.

*CARES Act

Sources:
Department of Labor
FierceBiotech (April 6, 2020) Trump administration uses wartime powers to be first in line on medical supplies
WASHINGTON (Reuters) [4-6-2020]

The United States entered into what an official called the “peak death week” of the coronavirus on Monday while a watchdog report said hospitals were struggling to maintain and expand capacity to care for infected patients.

The U.S. death toll, which topped 10,000 on Monday, was rapidly closing in on Italy and Spain, the countries with the most fatalities to date at nearly 16,000 and about 12,500 respectively, according to a Reuters tally of official data.

The states of New York, New Jersey, Connecticut and the city of Detroit are identified as being the most vulnerable.


Confidential 4

Source: https://www.theguardian.com/world/2020/apr/01/coronavirus-world-map-countries-most-cases-and-deaths
Confirmed Cases in the USA

- Confirmed cases of COVID-19 increased by over 3,223 from April 8th, 2020 to April 9th, 2020, representing an increase of roughly 1% in one day.
- Washington is no longer on the Top 10 list for confirmed cases (replaced by Georgia).
- States with the highest increases of confirmed COVID-19 cases continue to see significant activity in prescription trends for antimalarials, respiratory therapies, and immunologics compared to the baseline week of 2/21/2020.
- Although prescription volumes have declined compared to the prior week, activity in New York in particular is still up by 22% over baseline for key COVID-19 markets.

Last updated 9 Apr 6:25am EST Source: Johns Hopkins CSSE *Note: The CSSE states that its numbers rely upon publicly available data from multiple sources.

<table>
<thead>
<tr>
<th>State/Territory</th>
<th>Confirmed Cases</th>
<th>Deaths</th>
</tr>
</thead>
<tbody>
<tr>
<td>New York</td>
<td>151,079</td>
<td>6,269</td>
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<tr>
<td>New Jersey</td>
<td>47,437</td>
<td>1,504</td>
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<tr>
<td>Michigan</td>
<td>20,346</td>
<td>959</td>
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<td>California</td>
<td>19,031</td>
<td>507</td>
</tr>
<tr>
<td>Louisiana</td>
<td>17,030</td>
<td>652</td>
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<tr>
<td>Massachusetts</td>
<td>16,790</td>
<td>433</td>
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<tr>
<td>Pennsylvania</td>
<td>16,746</td>
<td>319</td>
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<tr>
<td>Florida</td>
<td>15,698</td>
<td>323</td>
</tr>
<tr>
<td>Illinois</td>
<td>15,078</td>
<td>462</td>
</tr>
<tr>
<td>Georgia</td>
<td>10,206</td>
<td>370</td>
</tr>
</tbody>
</table>
Trends in Types of Patient Visits

**COVID-19 INSIGHTS**

- Virtual patient visits are trending 5 times higher than the beginning of 2020.
- The decline in Office Visits plateaued with week ending 3/27/2020. Patient office visit volume is now down by half compared to February.

**Week 1 = 1/3/2020**

- The data is normalized to account for the lag in claims reporting and is until week ending 04/03/2020.
- Patient Visits is defined as the ratio of number of visits in a week in 2020 to the average number of visits during the baseline period in 2019.
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Trends in Types of Patient Visits

• Out-patient visits continued to decline from previous weeks but at a slower pace.
• ER and In-Patient visit remain steady into week ending 4/3/2020.
• Among the unexpected phenomena of the COVID-19 crisis, hospitals have seen their non-COVID-19 related volumes plummet with the shutdown of elective surgeries, clinic closures, and social distancing.
• The cancellation of elective services during the COVID-19 pandemic has significantly impacted revenues, causing hospitals to furlough healthcare workers or force pay-cuts [New York Times, April 5, 2020]

Other Sources: [FierceHealthcare, April 8, 2020]
ERs have been quiet during COVID-19. What happens when the patients come back?

• The data is normalized to account for the lag in claims reporting and is until week ending 04/03/2020
• Patient Visits is defined as the ratio of number of visits in a week in 2020 to the average number of visits during the baseline period in 2019
Following statements from the Trump administration touting antimalarials as “game changers” and news of potential supply shortages, lupus patients scrambled to fill their medications week ending 3/20/2020.

Patients who filled their scripts early did so by an average of 16 days sooner than when the refill was due (up from an average of 10 days early in prior weeks).

Overall antimalarial prescription trends continued to decline from the prior week with 4/3/2020 as payers enforced tighter restrictions on dispensed quantities to manage demand at the federal-level as well as for hospitals reserving the drugs for “critical care”.

Additional Sources: https://www.kqed.org/science/1960404/as-kaiser-trumps-pharmaceutical-advice-creates-chaos-for-lupus-patients
The quantity of pills dispensed to lupus patients dropped from an average of 45-60 pills per script to 35-45 pills by week ending 4/3/2020 (quantity dispensed depended on whether a patient requested a prescription fill early, late, or on-time).

Lupus is a disorder of the immune system in which an overproduction of antibodies can attack the body’s organs, most commonly kidneys and skin.

Hydroxychloroquine and Chloroquine protect against this overproduction.

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Highlight: Antimalarials & Lupus Patients

- The quantity of pills dispensed to lupus patients dropped from an average of 45-60 pills per script to 35-45 pills by week ending 4/3/2020 (quantity dispensed depended on whether a patient requested a prescription fill early, late, or on-time).

Source: FierceBiotech [April 6, 2020]: Trump administration uses wartime powers to be first in line on medical supplies

Products of Interest: Chloroquine Phosphate, Hydroxychloroquine Sulfate, Plaquenil, and Quinine Sulfate

Data Ending: April 3rd, 2020
Key Markets: Immediate Response to COVID-19

- Immunologic script activity for all ages continues to decline from the previous week’s run.
- Unprojected TRx volumes still remain above historical thresholds.

Immunologic Agents Weekly Trend

- Payer rejection rates for immunologic agents continue to remain at 8-9% despite the overall increase in rejected claims.
- Rejections for the current week are driven by refill too soon (up 18% from prior week), prior authorization requirements, and product/service not covered.

Immunologic Agents Weekly Rejected Claims

The drop in reporting activity for week ending 4/3/2020 is consistent across all age groups.
Similar to Immunology, Respiratory Therapy prescriptions are also down from the previous week’s run, although unprojected TRx volumes still remain above historical thresholds.

The payer rejection rate for respiratory therapy claims continues to increase into week ending 4/3/2020 (from 7% to 8% based on an initial snapshot - the rejection rate may change due to a lag in claims reporting).

Like immunology, increases in rejection rates are being driven by refill too soon, prior authorization requirements, and product/service not covered.
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Other Impacts: Decrease in Elective Therapies

• “Elective Therapies” continue to drop further below historical thresholds with week ending 4/3/2020, even more so when compared to the same week in 2019.
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Prescription Channel Analysis

• National prescription volumes are lower in all channels compared to the prior week ending 3/27/2020.

• Retail activity is down 4.2%, dropping further below 2019 thresholds.

• Mail Order is down 8.5%, but overall volumes are still ~7.8% above normal.
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Payer Rejections vs. Patient Abandonment

- While patient abandonment rates continue to decline with week ending 4/3/2020, the overall payer rejection rate has stabilized at 6-7%.

- Payer rejections are still driven by patients refilling too soon, product/service not covered, and plan limitations exceeded.
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Payer Rejections vs. Patient Abandonment

• Overall payer rejection rates have increased by an average of 1% compared to the prior week while patient reversals declined by an average of -1%.

• Markets with larger shifts in payer rejection or patient abandonment rates are detailed in the table on the right.

<table>
<thead>
<tr>
<th>Markets of Interest: USC 2: Antiarthritics, Anti-Fungal Agents, Antimalarials, Calcimimetic Agents, Diabetes, Immunologic Agents, Respiratory Therapy, and Vascular Agents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data Ending: April 3rd, 2020</td>
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</table>

<table>
<thead>
<tr>
<th></th>
<th>PAYER REJECTION RATES</th>
<th>PATIENT REVERSAL RATES</th>
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</thead>
<tbody>
<tr>
<td>ANTIARTHRITICS</td>
<td>5%</td>
<td>5%</td>
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<tr>
<td>ANTI-FUNGAL AGENTS</td>
<td>4%</td>
<td>4%</td>
</tr>
<tr>
<td>ANTIMALARIALS</td>
<td>5%</td>
<td>8%</td>
</tr>
<tr>
<td>CALCIMIMETIC AGENTS</td>
<td>13%</td>
<td>14%</td>
</tr>
<tr>
<td>DIABETES THERAPY</td>
<td>7%</td>
<td>7%</td>
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<tr>
<td>IMMUNOLOGIC AGENTS</td>
<td>8%</td>
<td>8%</td>
</tr>
<tr>
<td>RESPIRATORY THERAPY</td>
<td>6%</td>
<td>7%</td>
</tr>
<tr>
<td>VASCULAR AGENTS</td>
<td>7%</td>
<td>6%</td>
</tr>
</tbody>
</table>
Life sciences companies can access our Metys™ COVID-19 Module at no charge for 30 days

Register here: https://symphonyhealth.prahs.com/covid-19

Want to Learn More?

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- Our flagship measurement tool that can help you understand current, national market trends and impacts across therapeutic areas and diagnoses.
- We’ve developed a custom COVID-19 Module to help answer all your questions.