Registers and Centralised Reporting

SAHIVCS Conference 2018

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PROBLEM
BACKGROUND

• 3rd line ART
  • Started 2013
  • Defined mandate
  • Centralised (-WC)
  • Algorithm-based decision making
    • DRV; DTG; ETR
  • Captured on an Excel spreadsheet (“3rd line database”)
**BACKGROUND**

- **DTG: HP13 Supplementary Contract (2017)**

<table>
<thead>
<tr>
<th>Item No</th>
<th>Item Description</th>
<th>Quantity Awarded</th>
<th>Supplier</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>Darunavir 75mg tablets 480 tablets</td>
<td>200</td>
<td>Phai</td>
</tr>
<tr>
<td>8</td>
<td>Darunavir 150mg tablets 240 tablets</td>
<td>800</td>
<td>Phai</td>
</tr>
<tr>
<td>10.1</td>
<td>Dolutegravir 50mg tablets 30 tablets</td>
<td>200</td>
<td>Phai</td>
</tr>
<tr>
<td>27.1</td>
<td>Ritonavir 100mg</td>
<td>70,000</td>
<td>AbbV</td>
</tr>
</tbody>
</table>
DATABASES

- 3<sup>RD</sup> line database
  - 1 row = 1 application
Drug consumption

Patient level data

? =

Drug consumption
Databases

• 3rd line database
  • 1 row = 1 application
  • Non-3rd line mandate DTG use
  • Patient referrals
DATABASES

- **3\text{rd} line database**
  - 1 row = 1 application
  - Non-3\text{rd} line mandate DTG use
  - Patient referrals

Steegan. Active engagement between laboratory and clinicians improves linkage to third-line antiretroviral treatment
Sheik. A third-line ART referral process in the Western Cape Province, South Africa: Estimating qualification and predictors of referral

**DATABASES**

- **3rd line database**
  - 1 row = 1 application
  - Non-3rd line mandate DTG use
  - Patient referrals

<table>
<thead>
<tr>
<th>Met criteria for referral</th>
<th>Actually referred</th>
</tr>
</thead>
<tbody>
<tr>
<td>N=947</td>
<td>N=167</td>
</tr>
</tbody>
</table>

Referral criteria (adults):
- ≥ 15 y
- PI ≥ 2 y
- VL not suppressed x 3

<table>
<thead>
<tr>
<th>Met criteria and not referred</th>
<th>Met criteria and referred</th>
</tr>
</thead>
<tbody>
<tr>
<td>N=905</td>
<td>N=42</td>
</tr>
</tbody>
</table>
DATABASES

- RSA Pharma database
  - Contract items
  - Procurement level data
  - Data inputted by suppliers
  - Monthly trends (orders/deliveries)
METHODOLOGY

Data smoothing

ATC/DDD

Growth estimation
METHODOLOGY

• Manually Fit Linear Growth Models (proForecaster)
**METHODOLOGY**

**Defined Daily Dose:**

Assumed average maintenance dose per day for a medicine used for its main indication in Adults

**Uses:**

- Technical measurement that allows measurement and comparison of volume of medicine use
- Rough estimate of consumption, not an exact picture of actual use

<table>
<thead>
<tr>
<th>ATC</th>
<th>Strength</th>
<th>Strength Unit</th>
<th>Pack Size</th>
<th>Pack Size Unit</th>
<th>DDD</th>
<th>DDD Unit</th>
<th>Prescription days/month</th>
</tr>
</thead>
<tbody>
<tr>
<td>J05AX12</td>
<td>50</td>
<td>mg</td>
<td>30</td>
<td>tablet</td>
<td>50</td>
<td>mg</td>
<td>30</td>
</tr>
</tbody>
</table>

Dolutegravir 50mg tablets 30 tablets
METHODOLOGY

• Estimated patient numbers (linear growth)
RESULTS

Patient numbers

- RSA Pharma database launched
- HP13 Supplementary Contract
- Patient growth estimation

- Dolutegravir-Consumption Data (-WC)
- Dolutegravir 3L Database (-WC)
- Dolutegravir-Consumption Data (+WC)
**Dolutegravir (Consumption Data)**

**Dolutegravir (3L Database)**

**Raltegravir (Consumption Data)**

**Raltegravir (3L Database)**

**RSA Pharma database launched**

**HP13 Supplementary Contract**

**Patient growth estimation**

**Patient numbers**
RESULTS (RAL → DTG)

RAL --> DTG Switch Rate 10%

Dolutegravir (3L Database)   Raltegravir (3L Database)

RAL --> DTG Switch Rate 30%

Dolutegravir (3L Database)   Raltegravir (3L Database)
CONCLUSION

Earth is flat! Proof!

Oh wait....

A Continuous Interlocked Process—Not an Event
Herbert Musariri (Clinton Health Access Initiative)