Drug and Therapeutics Committee
Training Course

Session 7.
Identifying Problems with Medicine Use

Trainer’s Guide
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Developed in Collaboration with the
World Health Organization
Geneva, Switzerland
<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>ADR</td>
<td>adverse drug reaction</td>
</tr>
<tr>
<td>DDD</td>
<td>defined daily dose</td>
</tr>
<tr>
<td>DTC</td>
<td>Drug and Therapeutics Committee</td>
</tr>
<tr>
<td>DUE</td>
<td>drug use evaluation</td>
</tr>
<tr>
<td>EML</td>
<td>essential medicines list</td>
</tr>
<tr>
<td>g</td>
<td>gram</td>
</tr>
<tr>
<td>INRUD</td>
<td>International Network for Rational Use of Drugs</td>
</tr>
<tr>
<td>mg</td>
<td>milligram</td>
</tr>
<tr>
<td>ml</td>
<td>milliliter</td>
</tr>
<tr>
<td>MSH</td>
<td>Management Sciences for Health</td>
</tr>
<tr>
<td>PHC</td>
<td>primary health care</td>
</tr>
<tr>
<td>STG</td>
<td>standard treatment guideline</td>
</tr>
<tr>
<td>USD</td>
<td>U.S. dollar</td>
</tr>
<tr>
<td>VA</td>
<td>visual aid</td>
</tr>
<tr>
<td>VEN</td>
<td>vital, essential, nonessential</td>
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<tr>
<td>WHO</td>
<td>World Health Organization</td>
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</table>
SESSION 7. IDENTIFYING PROBLEMS WITH MEDICINE USE

Purpose and Content

The purpose of session 7 is to introduce participants to methods for identifying medicine use problems in hospitals and primary care clinics. Many medicine use problems may be difficult to detect on a day-to-day basis unless they are obvious. The use of the methodologies in this session will enable Drug and Therapeutics Committee (DTC) members to evaluate the pharmaceutical distribution system more closely and discover those medicine use problems that may have a significant impact on patient care.

Objectives

After attending this session, participants will be able to—

- Describe how indicators can be used to identify medicine use problems
- Perform a prescribing indicator study on a sample of prescriptions and explain how it can be used to identify medicine use problems
- Discuss the use of aggregate data including defined daily dose (DDD) to analyze the consumption of medicines
- Perform an ABC analysis and explain how it can be used to identify medicine use problems, reduce costs, and improve efficiency in the pharmaceutical supply system
- Discuss how VEN system for setting priorities will assist the DTC in medicine selection, purchasing, and inventory management

Outline (Parts 1 and 2)

- Introduction
- World Health Organization (WHO)/ International Network for Rational Use of Drugs (INRUD) Indicators for Hospitals and Primary Health Care Clinics
- Aggregate Data
  - DDD
  - VEN Analysis
  - ABC Analysis
- Activity
- Summary
Preparation and Materials

- Read the Trainer’s Manual and the Participants’ Guide, and review the visual aids (VAs).
- Instruct participants to read the Participants’ Guide the evening before the session presentation.
- Ensure that each table (of five to eight people) has at least two calculators.
- Each group should fill in the prescribing indicator form on page 68 of the WHO manual *How to Investigate Drug Use in Health Facilities*, which should be attached as a worksheet 1 in the Participants’ Guide. (See activity 1.)
- For part A on indicator studies, arrange for the local hosts to provide old prescriptions or log books for each table to use to calculate the WHO/INRUD medicine use indicators. Each table should have at least 100 prescriptions and take a random sample of 30 to calculate the indicators. The indicators suggested for calculation are—
  - Average number of medicines per patient encounter
  - Percentage of prescriptions containing one or more antibiotics
  - Percentage of prescriptions containing one or more injections
  - Percentage of medicines prescribed by generic name
- For part B on aggregate methods, do all the calculations for the ABC analysis yourself before leading the session (using an Excel® spreadsheet if possible), so you can easily explain the answers and difficulties of calculation in the session.

Further Readings


Session 7. Identifying Problems with Drug Use


**Visual Aid Listing**

Part A. Identifying Problems with Medicine Use: Indicator Studies

1. Title slide
2. Objectives
3. Outline—Part A
4. Introduction
5. Methods to Investigate Medicine Use
6. Indicators for Health Care Facilities (1)
7. Indicators for Health Care Facilities (2)
8. Indicators for Health Care Facilities (3)
9. WHO Indicators for PHC
10. Prescribing Indicators—PHC
11. Prescription 1
12. Prescription 2
13. Prescription 3
14. Prescription 4
15. Prescription 5
16. Prescription 6
17. Patient Care Indicators—PHC
18. Health Facility Indicators—PHC
19. Complementary Indicators—PHC
20. Performing an Indicator Study (1)
21. Performing an Indicator Study (2)
Part B. Identifying Problems with Medicine Use: Aggregate Methods

1. Title slide
2. Objectives
3. Outline—Part B
4. Methods to Investigate Medicine Use
5. Aggregate Data (1)
6. Aggregate Data (2)
7. Defined Daily Dose (1)
8. Defined Daily Dose (2)
9. Defined Daily Dose Example 1: Captopril Use
11. VEN Analysis
12. Conducting a VEN Analysis
13. VEN Applications for DTC
14. VEN Analysis, Activity, and Discussion
15. ABC Analysis
16. ABC Analysis: A, B, and C Medicines (1)
17. ABC Analysis: A, B, and C Medicines (2)
18. Applications of ABC Analysis for a DTC
19. Steps in Performing ABC Analysis
20. ABC Step 1. List items and unit costs.
21. ABC Steps 2 and 3. Calculate consumption quantities and values—sort list by descending values.
22. ABC Step 4. Calculate the percentage of total value represented by each item.
23. ABC Step 5. Rank items in descending order.
24. ABC Step 6. Calculate the cumulative percentage of total value for each item.
25. ABC Step 7. Choose cut-off points for ABC analysis chart.
26. Activities 3, 4, and 5
27. Summary
Organization of the Session

Total time: 7½–8 hours

Session 7 is divided into two half-day sessions of at least three and half to four hours each. The first part of the session covers indicator studies and the second part, aggregate methods. The session overall is long and aims to give the participants practical experience in identifying medicine use problems. In part A (indicator studies), the participants will calculate the indicators from real prescriptions and role-play. In part B (aggregate methods), the participants will undertake VEN and ABC analyses from a list of medicines provided.

Part A. Identifying Problems with Medicine Use: Indicator Studies

Total time for part A: 4 hours
First Component: 15 minutes
VAs 1–8: Introduction

Start part A by asking the participants how they might investigate medicine use to identify problems. This discussion will help you know the level of experience within the group and to adjust the session accordingly. Then briefly introduce the topic by explaining the different methods to investigate medicine use. Point out that some methods collect medicine use data at the individual patient level and some methods collect at an aggregate level from routine data. Explain how a DTC would use indicator and aggregate methods to identify a problem area. Point out, however, that the DTC would need to undertake more in-depth investigation to define the nature of the problem and understand the underlying reasons for it—and that these topics will be covered in two sessions later in the course. Then introduce the concept of indicators (VAs 7–8).

Second Component: 60 minutes
VAs 9–19: WHO/INRUD Indicators for Hospitals and Primary Health Care Clinics

When explaining the indicators, refer to the definitions developed by INRUD and WHO and used in the WHO manual How to Investigate Drug Use in Health Facilities. Explain that these indicators have been extensively field tested and found to be valid and reliable in primary health care (PHC) settings. They are not suitable for specialist clinics such as infectious disease clinics (where everyone might correctly receive antibiotics) or hypertension clinics (where no one should receive antibiotics unless there is a concurrent bacterial infection).

Ask questions and quote examples and controversies.

Problems of defining prescribing indicators include the following—

- For average numbers of medicines, ask how many medicines are in co-trimoxazole. Mention other examples of fixed-dose combinations such as amoxicillin + clavulanic acid, rifampicin + isoniazid, sulfadoxine-pyrimethamine (Fansidar®).
- For injections, comment, “If it hurts, it’s an injection.”
• For antibiotics, ask whether metronidazole is an antibiotic. Explain that in many PHC situations, metronidazole is used as an antiprotozoal and, therefore, is not defined as an antibiotic but that where it is being used as an antibacterial, a DTC may want to classify it as an antibiotic.

• For generics, ask whether aspirin (acetylsalicylic acid) is a generic or brand name. Discuss the case of paracetamol (Panadol).

• For the essential medicines list (EML) or formulary, discuss the need to define in advance what would be an acceptable list.

For VAs 11–16, ask the participants the following questions, and anticipate the following answers—

• VA 11—Q: How many medicines are on this prescription?
  A: Three—the two chloroquine formulations are counted as one medicine.

• VA 12—Q: What do you think of this prescription?
  A: Unclear handwriting—explain how one might deal with this.

• VA 13—Q: Does this prescription list an antibiotic?
  A: No, normally metronidazole is not classified as an antibiotic.

• VA 14—Q: What does this prescription say?
  A: The last line is an instruction to pulverize tablets and mix into different packages.

• VA 15—Q: How many medicines are on this prescription? How many generics?
  A: Three medicines—Septrin is only one medicine. One generic—Septrin and Panadol are not generics.

• VA 16—Q: How many generics are on this prescription?
  A: Handwriting unclear but probably one generic—codeine

Problems of defining patient care and facility indicators include the following—

• For the patient care indicators, point out that consulting time may be affected by interruptions. How might an investigator measure consulting time if several patients are in the consulting room at the same time?

• For dispensing time, suggest the WHO/INRUD indicator may not be the most useful indicator. A more careful indicator might be dispensing communication time, which is the time the patient is actually communicating with the dispenser after the prescribed medicines have been collected.

• For facility indicators, point out that the DTC must make a decision in advance about which EML or formulary would be acceptable.
• For patient knowledge on medicine dosing, ask if anyone has any experience with this topic and, if so, what difficulties he or she has experienced. Draw some particular answers out of the participants. For example, patients must be interviewed with the medicines and prescription or label in hand because otherwise the investigator cannot judge whether the patient’s knowledge is correct. Point out that in many situations, the patient may have neither a prescription nor adequate label on the medicines.

• For labeling issues, ask what an adequate label is. An adequate label must contain the patient name, generic medicine name, medicine strength, and how to take the medicine.

**Third Component: 15 minutes**
**VAs 20–24: Performing an Indicator Study**

Brainstorm with the participants the steps involved in carrying out an indicator study. Then review the steps using VAs 20–22. Point out how a graphic presentation of the findings can identify facilities where medicine use is significantly better or worse (VAs 23–24). Refer to chapter 4, pages 32–38 in the WHO manual *How to Investigate Drug Use in Health Facilities* for the steps needed to undertake an indicator study.

When discussing training of field workers refer to table 5, page 35 in *How to Investigate Drug Use in Health Facilities*, which describes how the enumerators can be trained. Stress how important it is to conduct field practice to gain shared experience in conducting such surveys. Briefly discuss the scope and sampling issues for a survey, and refer to pages 25–31 of *How to Investigate Drug Use in Health Facilities*. Point out that the type of survey will depend on who will use the information and the purpose of the survey. For sampling, characterize the most common situation in which 20 facilities are surveyed with 30 prescriptions or observations, which gives results with confidence intervals of ±7.5 percent for the entire sample. For an individual facility with 100 prescriptions or observations, the confidence interval would be ±10.0 percent.

**Fourth Component: 15 minutes**
**VAs 25–29: Hospital Indicators**

VA 25 shows a variety of indicators that have been used in different countries. VAs 26–28 show indicators of antimicrobial usage developed by Management Sciences for Health (MSH). These latter indicators are relatively new. Since they have not been extensively field-tested their reliability and validity is less certain than for the PHC indicators. An example of hospital related indicators developed in Zimbabwe and Australia are also included.

**Fifth Component: 120 minutes**
**VA 30: Activities**
Activity 1. Calculating Prescribing Indicators from Prescriptions
(60 minutes)

Each group should be given at least 100 (preferably more) prescriptions and asked to randomly select 30 and calculate the following—

- Average number of medicines per encounter
- Percentage of medicines prescribed by generic name
- Percentage of encounters with an antibiotic prescribed
- Percentage of encounters with an injection prescribed
- Percentage of medicines prescribed which are from the EML or formulary list

Each group should fill in the prescribing indicator form on page 68 of the WHO manual *How to Investigate Drug Use in Health Facilities*, which should be attached as a worksheet 1 in the Participants’ Guide. Ask the participants how they will select 30 prescriptions randomly from the 100 and suggest several methods, some of which may require numbering prescriptions. Suitable methods include random selection of prescription numbers from a “hat” or random selection of a number between 1 and 10 and then selecting every third prescription (if there is a total of 100 prescriptions) starting from that number.

During the group work, check that all groups have correctly calculated the indicators. Numerator and denominator mistakes are frequent. For example, participants often calculate the percentage of medicines that are antibiotics instead of the percentage of patients who are receiving one or more antibiotics. For the latter, the numerator is the number of patients receiving one or more antibiotics (irrespective of whether two or more antibiotics were prescribed for each patient), and the denominator is the number of patients (not medicines)—that is, 30 patients in this exercise. For the percentage of medicines prescribed by generic name, the numerator is the number of medicines prescribed by generic name, and the denominator is the total number of medicines prescribed (for all 30 patients).

Each group should present its results at the end and explain how the members selected 30 prescriptions. Facilitate a short discussion about the reasons for similarities or differences in the results between groups. Indicator results may be similar or different depending on whether the facility types, prescriber types, seasons, or other parameters are similar. Indicator results may be slightly different even from the same prescriptions in the same facility because of differences in how prescriptions were selected—hence the need for random samples of sufficient size.

Activity 2. Calculating Patient Care Indicators from Observing Role-Play Consultations
(60 minutes)

Develop a role-play in which a facilitator acts as a physician and the participants are the patients. During this role–play, several medical consultations are enacted, the consultation times are recorded, and the average consultation time is calculated. As the lead facilitator of the session, you should not take the role of physician because your job is to observe the role-play and time the consultations just as the observing participants should do. At the end of the role-play, ask
each observing participant what the average consultation time was and record it on a flipchart. Within a short time, it should become clear that the average consultation time varies greatly with different observers. This fact can then be used to discuss the importance of (a) field testing (i.e., how one would measure an indicator), (b) training observers, and (c) the various problems that can be encountered.

If time allows, another role-play for other indicators can be enacted. A role-play for dispensing time can be arranged in a similar manner to that for consultation time, but role-plays for the other indicators (e.g., patient knowledge) are more difficult and require more time (see activity 1 in session 8 on understanding medicine use problems).

**Sixth Component: 15 minutes**
**VA 31: Summary**

Performing an indicator study is useful method to—

- Identify medicine use problems at the patient level
- Monitor medicine use by prescribers
- Evaluate the impact of interventions

Emphasize (a) the importance of defining each indicator, (b) the importance of field testing the measurement of each indicator, and (c) the steps of conducting an indicator study.

**Part B. Identifying Problems with Medicine Use: Aggregate Methods**

**Total time for part B: 3½–4 hours**

**First Component: 10 minutes**

**VAs 1–6: Introduction**

Start part b by reviewing VAs 2–3 and explaining that in part A, the participants have received training on indicator studies, and that part B will be devoted to other ways of investigating medicine use. Then ask the participants what is meant by the term aggregate data, and brainstorm with them about what different sources of aggregate data exist. Explain that aggregate data methods use routine data sources and are often much quicker and easier to use than looking at individual patient records or prescriptions to identify problem areas in medicine use.

**Second Component: 20 minutes**

**VAs 7–10: Defined Daily Dose (DDD)**

DDD is often confusing for participants. Therefore, explain carefully that the DDD is the assumed average daily maintenance dose for the medicine’s main indication as decided by the WHO Collaborating Center for Drug Statistics Methodology in Oslo, Norway (http://www.whocc.no); it is not the actual prescribed dose for any particular patient. The DDD provides a unit of measurement that is independent of price and formulation and, thus, can be used to assess trends in consumption of medicines and to perform comparisons between
Without DDDs, countries would report medicine consumption in different units, such as milligrams, gram tons, kilograms, DDD, dollars, and so forth. Carefully explain each step of the calculations in VAs 8–9 and in box 1 to the class.

**Box 1. Example of a Calculation Using DDD**

<table>
<thead>
<tr>
<th>District hospital and clinics use 22.5 million tablets yearly of captopril 25 mg and 3.0 million tablets yearly of captopril 50 mg. This medicine usage is for a population of 2.7 million people.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calculating the consumption of captopril utilizing DDD methodology would be as follows—</td>
</tr>
<tr>
<td>Quantity of medicine used in 1 year multiplied by the strength of the product</td>
</tr>
<tr>
<td>(22.5 million × 25 mg) + (3.0 million × 50 mg) = 7.125 million mg (total quantity consumed)</td>
</tr>
<tr>
<td>Divide total quantity consumed by the assigned DDD for that medicine (for captopril = 50 mg)</td>
</tr>
<tr>
<td>7.125 million mg / 50 mg = 14.25 million DDD</td>
</tr>
<tr>
<td>Divide total quantity by 2.7 million and multiply by 1,000 (this is the population denominator for this method) to obtain the DDD / 1,000 inhabitants / year (divide by 365 to obtain DDD/1,000 inhabitants/day)</td>
</tr>
<tr>
<td>DDD / 1,000 inhabitants / year = 5,278</td>
</tr>
<tr>
<td>DDD / 1,000 inhabitants / day = 14.46</td>
</tr>
<tr>
<td>This calculated dose could then be used to compare consumption of this medicine to other hospitals, regions, or countries. The DDD can also be used to compare consumption in the same region over extended periods of time.</td>
</tr>
</tbody>
</table>

**Third Component: 20 minutes**

**VAs 11–14: VEN Analysis**

After explaining the VAs, discuss the following points briefly—

- Assignment to the “nonessential” category does not mean that a medicine is no longer on the system’s formulary or EML; it means only that it may be considered a lower priority than other medicines on the list.

- Some people find three categories difficult and prefer to use only two categories (e.g., vital and nonessential or essential and nonessential). This preference does not matter as long as the categories used are relevant and allow for clear prioritization among medicines.

- VEN classification should be done on a regular basis, for example, as the formulary or EML is updated or as public health priorities change.

- Monitoring of pharmaceutical orders should be more frequent and safety stocks should be higher for vital and essential medicines.
Slide 13 presents a short list of medicines for a primary health care facility. Ask the participants how they would classify some of the medicines listed. This brief discussion and interaction will help the participants perform a VEN analysis later in a session activity.

**Fourth component: 20 minutes**  
**VAs 15–25: ABC Analysis**

After explaining the principles of ABC analysis and its uses, go through the steps of calculation in the example shown in VAs 19–24. ABC analysis will be completely new to doctors and any other participants who are not pharmacists, so clear presentation at this stage will help the practical activity that follows. Discuss how ABC analysis should be done regularly and that the use of the medicines consuming most of the budget should be regularly assessed in-depth.

**Fifth Component: 120 minutes**  
**VAs 26: Activities**

**Activity 3. Performing a VEN Analysis**  
(30–40 minutes)

The participants at each table should work as a group, representing a medicine selection committee. They should perform a VEN analysis on the medicines listed in worksheet 2 on performing an ABC analysis. At the end, all groups should list, in a plenary session, the categories into which they have placed each medicine—V, E, or N.

As the groups present, type the category assigned each medicine into a spreadsheet projected on an LCD projector. Alternatively, write on a transparency for an overhead projector or on a flipchart. Table 1 provides an abbreviated example of how your spreadsheet might look. A short discussion can then follow on why different groups have assigned the same medicine to different categories.

<table>
<thead>
<tr>
<th>Medicine Name</th>
<th>Group 1</th>
<th>Group 2</th>
<th>Group 3</th>
<th>Group 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Procaine penicillin</td>
<td>V</td>
<td>E</td>
<td>V</td>
<td>V</td>
</tr>
<tr>
<td>Paracetamol</td>
<td>E</td>
<td>E</td>
<td>E</td>
<td>N</td>
</tr>
<tr>
<td>Multivitamin</td>
<td>N</td>
<td>E</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>Normal saline</td>
<td>V</td>
<td>V</td>
<td>V</td>
<td>V</td>
</tr>
</tbody>
</table>

If time allows, ask the participants at the beginning of the group work to consider the following scenario; presentations from each group can be heard at the end.
Your hospital has received the new budget for the next annual procurement. It is $250,000—$46,046 less than what was used in the previous procurement presented in the ABC analysis on the worksheet. Having completed the VEN analysis—

- Which medicines would you assign a lower priority to for next year’s procurement?
- Would you reconsider any quantities? Why?
- Select a group representative to present your conclusions to the larger group.

If this activity is included, then the groups would present their answers to the class after they have listed the categories they have assigned to each medicine.

**Activity 4. Performing an ABC Analysis**  
*(90 minutes)*

The participants at each table should work as a group, representing a medicine selection committee. They should perform an ABC analysis using worksheets 2 and 3 on performing an ABC analysis.

They should answer the following questions—

- How many “A” items are there? “B” items? “C” items?
- What percentage of all items do “A” items represent? “B” items? “C” items?
- What is the value of consumption for each category?
- What percentage of the total consumption is represented by each category?
- What particular product(s) may need to be reviewed more closely by the DTC because of their consumption levels?

Use the set of Excel spreadsheets with the answers to explain the correct calculations and answers (annex 1).

Other issues for discussion include the following—

- Why are there so many disinfectants (20 percent of total)? Are they all essential?
- Why are there so many antibiotics?
- Why is dipyprone used, especially at this health care level?
- What should the DTC do concerning these problems?

**Activity 5. Performing an ABC/VEN Analysis Using Participants’ Data**

If time permits, use data that you have brought from your hospital, perform an ABC analysis and VEN analysis on all medicines that are available. Utilize computers available at the course or if your medicine list is short, manually perform the analysis.
Prepare a brief report on your analysis including the following—

- Number of medicines
- Top 10 medicines by value
- Number of medicines in “A” category
- List of all “V” medicine
- Recommendations concerning the formulary from this ABC/VEN analysis

**Sixth Component: 15 minutes**

**VAs 27: Summary**

Summarize key points. Emphasize that VEN and ABC analyses together can identify nonessential medicines that are consuming large parts of the budget. The use of these medicines should be further investigated in-depth.
Annex 1. ABC Analysis Answers—Results of Calculations and Ranking

<table>
<thead>
<tr>
<th>Product Description</th>
<th>Basic Unit</th>
<th>Unit Tender Price (USD)*</th>
<th>Total Units</th>
<th>Value (USD)</th>
<th>Percentage of Total Value</th>
<th>Rank by Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ampicillin 125 mg/5 ml powder for suspension, 100 ml</td>
<td>Bottle</td>
<td>$0.5119</td>
<td>43,970.00</td>
<td>22,508.74</td>
<td>7.60</td>
<td>4</td>
</tr>
<tr>
<td>Benzoin, compound tincture</td>
<td>Milliliter</td>
<td>$0.0067</td>
<td>532,000.00</td>
<td>3,581.98</td>
<td>1.21</td>
<td>19</td>
</tr>
<tr>
<td>Benzylpenicillin 1 MU injection</td>
<td>Ampoule</td>
<td>$0.5276</td>
<td>144,000.00</td>
<td>75,971.19</td>
<td>25.66</td>
<td>1</td>
</tr>
<tr>
<td>Calcium gluconate 600 mg tablet</td>
<td>Tablet</td>
<td>$0.0032</td>
<td>995,000.00</td>
<td>3,171.46</td>
<td>1.07</td>
<td>22</td>
</tr>
<tr>
<td>Chlorhexidine 5% solution</td>
<td>Milliliter</td>
<td>$0.0073</td>
<td>2,504,000.00</td>
<td>18,347.98</td>
<td>6.20</td>
<td>5</td>
</tr>
<tr>
<td>Chlorhexidine/cetrimide 1.5% + 15% solution</td>
<td>Milliliter</td>
<td>$0.0064</td>
<td>1,552,000.00</td>
<td>9,964.24</td>
<td>3.37</td>
<td>6</td>
</tr>
<tr>
<td>Chloroquine 50 mg base/ml syrup</td>
<td>Milliliter</td>
<td>$0.0014</td>
<td>5,610,000.00</td>
<td>7,682.00</td>
<td>2.59</td>
<td>10</td>
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<tr>
<td>Chloroxylenol 5% solution</td>
<td>Milliliter</td>
<td>$0.0034</td>
<td>10,728,000.00</td>
<td>35,994.11</td>
<td>12.16</td>
<td>2</td>
</tr>
<tr>
<td>Chlorphenamine maleate 4 mg tablets</td>
<td>Tablet</td>
<td>$0.0009</td>
<td>555,000.00</td>
<td>498.33</td>
<td>0.17</td>
<td>29</td>
</tr>
<tr>
<td>Codeine phosphate 15 mg/5ml linctus</td>
<td>Milliliter</td>
<td>$0.0052</td>
<td>490,000.00</td>
<td>2,529.86</td>
<td>0.85</td>
<td>23</td>
</tr>
<tr>
<td>Co-trimoxazole 400 mg/80 mg tablets</td>
<td>Tablet</td>
<td>$0.0098</td>
<td>860,000.00</td>
<td>8,455.34</td>
<td>2.86</td>
<td>8</td>
</tr>
<tr>
<td>Dipyrone 500 mg/ml injection, 5 ml</td>
<td>Ampoule</td>
<td>$0.0898</td>
<td>65,000.00</td>
<td>5,836.29</td>
<td>1.97</td>
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<tr>
<td>Erythromycin 250 mg tablets</td>
<td>Tablet</td>
<td>$0.0350</td>
<td>262,000.00</td>
<td>9,175.24</td>
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<tr>
<td>Ferrous salts, equivalent to 60 mg iron tablets</td>
<td>Tablet</td>
<td>$0.0007</td>
<td>3,280,000.00</td>
<td>2,208.44</td>
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<td>24</td>
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<tr>
<td>Fortified procaine penicillin 4 MU injection</td>
<td>Vial</td>
<td>$0.3026</td>
<td>100,000.00</td>
<td>30,259.14</td>
<td>10.22</td>
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<tr>
<td>Gentamicin sulfate 80 mg injection, 2 ml</td>
<td>Ampoule</td>
<td>$0.0628</td>
<td>130,800.00</td>
<td>8,209.19</td>
<td>2.77</td>
<td>9</td>
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<tr>
<td>Hydrogen peroxide 6% solution</td>
<td>Milliliter</td>
<td>$0.0016</td>
<td>632,000.00</td>
<td>1,005.64</td>
<td>0.34</td>
<td>25</td>
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<tr>
<td>Hyoscine N-butylbromide 10 g tablets</td>
<td>Tablet</td>
<td>$0.0174</td>
<td>380,000.00</td>
<td>6,597.83</td>
<td>2.23</td>
<td>12</td>
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<tr>
<td>Metronidazole 200 mg tablets</td>
<td>Tablet</td>
<td>$0.0052</td>
<td>1,080,000.00</td>
<td>5,575.78</td>
<td>1.88</td>
<td>15</td>
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<tr>
<td>Metronidazole 200 mg/5 ml suspension</td>
<td>Milliliter</td>
<td>$0.0055</td>
<td>900,000.00</td>
<td>4,985.00</td>
<td>1.68</td>
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<tr>
<td>Multivitamin tablets/capsules</td>
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<td>$0.0022</td>
<td>3,395,000.00</td>
<td>7,621.62</td>
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<td>Nitrofurantoin 100 mg tablets</td>
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<td>$0.0055</td>
<td>860,000.00</td>
<td>4,710.53</td>
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<tr>
<td>Oxytocin 10 IU injection, 1 ml</td>
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<td>$0.2468</td>
<td>14,500.00</td>
<td>3,578.06</td>
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<td>Pheno barbital 60 mg tablets</td>
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<td>135,000.00</td>
<td>636.40</td>
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<tr>
<td>Piroxicam 20 mg capsules</td>
<td>Capsule</td>
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<td>97,000.00</td>
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<td>Prednisolone 8 mg tablets</td>
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<td>65,000.00</td>
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<tr>
<td>Propranolol 40 mg tablets</td>
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<td>$0.0067</td>
<td>33,000.00</td>
<td>222.19</td>
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<tr>
<td>Pseudoephedrine 60 mg/triprolidine 2.5 mg tablets</td>
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<td>100,000.00</td>
<td>5,359.61</td>
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<td>Vitamin B complex tablets</td>
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<td>1,440,000.00</td>
<td>3,555.48</td>
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<tr>
<td>Water for injection 10 ml</td>
<td>Ampoule</td>
<td>$0.0287</td>
<td>220,500.00</td>
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*USD = U.S. dollars