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| Republic of Uganda Logo Coat of Arms Uganda MoH Ministry of Health | **Lab SPARS Data Collection Tool**  Form Version 2.1 | 01082024 | Uganda National Health Laboratories Services  P.O. Box 7272  Plot 106 – 1062, Butabika Luzira Road, Kampala, Uganda |

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| **Read and refer to the**  *“Lab SPARS Data Collection Tool & Support Supervision Visit Guidelines”*  **before filling the form** |

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Health Region | |  | | | | Name of Laboratory In-charge | | |  | |
| District | |  | | | | In-Charge Phone No | | |  | |
| Health Sub District | |  | | | | Supervision Visit No | | |  | |
| Health Facility | |  | | | | Date of Visit | | |  | |
| Level | |  | | | | Date of Next Visit: | | |  | |
| Ownership | |  | | | | Name of responsible LSS | | |  | |
| **NAME(S) OF PERSONS SUPERVISED** | | | | | | | | | | |
| # | Name | | Sex (F/M) | | Profession | | | Contact/Phone No. | | Email |
| 1. |  | |  | |  | | |  | |  |
| 2. |  | |  | |  | | |  | |  |
| 3. |  | |  | |  | | |  | |  |
| 4. |  | |  | |  | | |  | |  |
| **NAME(S) OF SUPERVISORS** | | | | | | | | | | |
| # | Name | | | Contact/Phone No. | | | Title | | | |
| 1 |  | | |  | | |  | | | |
| 2 |  | | |  | | |  | | | |
| 3 |  | | |  | | |  | | | |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **D1: Where are Laboratory supplies MAINLY stored in the facility?** | | | | |
|  | STORE | Tick as appropriate | Comment |  |
| 1 | Main store | |  | | --- | |  | |  |  |
| 2 | Laboratory store | |  | | --- | |  | |  |  |
| 3 | Pharmacy store | |  | | --- | |  | |  |  |
| 4 | Wards | |  | | --- | |  | |  |  |
| 4 | Cabinets in the laboratory | |  | | --- | |  | |  |  |
| 5 | Other stores, please specify | |  | | --- | |  | |  |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **D2: Where ELSE are Laboratory supplies stored in the facility** *(Do not repeat response selected in D1 above)* | | | | |
|  | STORE | Tick as appropriate | Comment |  |
| 1 | Main store | |  | | --- | |  | |  |  |
| 2 | Laboratory store | |  | | --- | |  | |  |  |
| 3 | Pharmacy store | |  | | --- | |  | |  |  |
| 4 | Wards | |  | | --- | |  | |  |  |
| 4 | Cabinets in the laboratory | |  | | --- | |  | |  |  |
| 5 | Other stores, please specify | |  | | --- | |  | |  |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **D3: Does the facility use stock cards to track the use of laboratory supplies** (*Observe*) | | | | |
|  | |  | | --- | |  |   Yes | No   |  | | --- | |  | | Comment |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **D4: Where are stock cards kept in the facility** (*Observe*) | | | | |
|  | STORE | Tick as appropriate | Comment |  |
| 1 | Main store | |  | | --- | |  | |  |  |
| 2 | Laboratory store | |  | | --- | |  | |  |  |
| 3 | Pharmacy store | |  | | --- | |  | |  |  |
| 4 | Wards | |  | | --- | |  | |  |  |
| 4 | Cabinets in the laboratory | |  | | --- | |  | |  |  |
| 5 | Other stores, please specify | |  | | --- | |  | |  |  |

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| --- |
| D5: **Assessor**: *If stock cards are kept in multiple places*, ask; How is the consumption reconciled with the main store/stock card |
|  |

## I. STOCK MANAGEMENT

**1- 7 Availability of reagents and correct filling of stock cards, stock books etc.**

*Verify information recorded for the selected vital tests and reagents, complete table1 with (Y=1/N=0): If the facility does not carry out a particular test i.e.* ***C 1*** *write "0" for* ***C1*** *and "NA" for the rest of the columns (****C2*** *to* ***C18****) ; if the item is un available, write "0" in* ***C2*** *and proceed to* ***C3****, if stock card unavailable write ‘0’ in* ***C3*** *followed by ‘0’ for* ***C4*** *to* ***C13*** *and ask* ***C14*** *If stock book unavailable write “0” in* ***C14*** *followed by ‘0” for* ***C15*** *to* ***C18****. If AMC not recorded write ‘NR’, if item overstocked (****C17****) write “0”.* ***NB****: For all unselected items (vital tests) write “NS”.*

**Table 1: Availability of reagents and correct filling of stock cards, stock books (Key: C= Column, R=Row)**

|  |  | **Columns** | **C1** | **C2** | **C3** | C4 | **C5** | C6 | C7 | **C8** | C9 | C10 | C11 | C12 | **C13** | C14 | **C15** | **C16** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Testing Category** | Reagent & Unit size | Does the facility carry out these tests (Assessor ask for all ten tracer items and score yes=1 and No=0 | **Is the Item available? (Score 1/0) - If expired, mark (E)** | **Is the Stock card available? (1/0)** | Is a physical count (PC) done every month and marked in the stock card (*check last 3 complete months*) (1/0) | **Is the card filled correctly with name, unit size**, **Min&** **Max**, **special storage (1/0)** | Balance according to stock card (record no. from the card) | Count the no. of reagents in stock and record i.e. physical count (PC) | **Does the balance according to the stock card agree with the PC 100%? (1/0)** | Record the amount issued in the last 3 complete months. | Record the number of days out of stock in the last 3 complete months. | Record the average monthly consumption (AMC) as per the stock card. Write NR if not recorded. | Calculate & record the AMC based on the last 3 complete months | **Does the AMC from the stock card agree with the calculated AMC ±10%? (1/0) Write NR if no record in C11 above** | Does the facility have an ELMIS/EMR installed at the store? (1/0) | Record the quantity as per the ELMIS/EMR. Write NR if not recorded. | **Does the balance according to the ELMIS/EMR agree with the PC 100%? (1/0)** |
| R1 | HIV | Determine strips, 100 Tests |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| R2 | HIV | DBS Collection Set, 50 Tests |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| R3 | TB | GeneXpert Xpert MTB/RIF Ultra Assay, 50 Cartridges with Sample Reagent, 1 Kit |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| R4 | HIV | Plasma Collection Tube, K2-EDTA + PPT Polymer Gel, 5ml, Plastic, White Top, Sterile. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| R5 | Malaria | Malaria Rapid Diagnostic Test (RDT), 25 Tests |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| R6 | Advanced HIV | Visitect CD4 Advanced Disease, 25 Tests |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| R7 | HIV | HIV/Syphilis Duo Kit / HIV-1/2 (Standard Q HIV/Syphilis Combo Test Bundle, 25 Tests) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| R8 | CaCx | GeneXpert Xpert HPV Assay, 10 Cartridges, 1 Kit |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| R9 | Advanced HIV | Pima CD4 Cartridges (100 Tests) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| R10 | Haematology | Blood Grouping Reagent, 10 mL Vial (Anti A,B, AB, D) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| R11 | Chemistry | Blood Glucose Test Strips, 50 Tests |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| R12 | TB | Strong Carbol Fuchsin 1000ml Solution |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| R13 | Others | Hepatitis B Rapid Diagnostic Test (RDT) HBsAg, 100 Tests |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| R14 | HIV | GeneXpert Xpert HIV-1/VL Assay, 10 Cartridges with Sample Reagent, 1 Unit |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| R15 | HIV | m-Pima HIV-1/2 Detect, 50 Tests |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| R16 | Option (HIV) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| R17 | Option (TB) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| R18 | Option (Malaria) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| R19 | Option (STI) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| R20 | Option (Advanced) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| R21 | Option (Haem) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| R22 | Option (Chem) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| R23 | Option (Others) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | **SUM** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

***Note!***

1. ***A minimum of 10 commodities must be assessed prioritizing the commodities in rows R1 – R15***
2. ***In case priority commodities listed are not available, please select from the options below per category***
3. ***All ‘NAs’ must be explained in the comments section below.***

**Comments:**

**------------------------------------------------------------------------------------------------------------------------------------------------**

**------------------------------------------------------------------------------------------------------------------------------------------------**

**------------------------------------------------------------------------------------------------------------------------------------------------**

**Options of Commodities to Review**

1. **HIV**
   1. HIV-1/2, STAT-PAK Assay, 20 Tests
   2. HIV-1/2, Bioline 3.0, 25 Tests
   3. m-Pima HIV-1/2 VL, 50 Tests
   4. GeneXpert Xpert® HIV-1 Qual Assay, 10 Cartridges with Sample Reagent, 1 Unit,
   5. HIV-1/2, OraQuick Rapid Antibody Test, 25 Tests
   6. Asante Rapid Recency Test (FOR RESEARCH USE ONLY), 20 tests
   7. Syphilis Rapid Diagnostic Test (RDT) Bioline 3.0, 30 Tests
2. **TB**
   1. TRUENAT-Truenat MTB Plus, 50 Tests
   2. Sulphuric Acid, 25%
   3. TB LAMP-Loopamp MTBC Detection Kit, 96 Tests
   4. Specimen Container, Sputum, 60 mL, Screw Cap, Translucent, Sterile
3. **Malaria**
   1. Field Stain B, 1000ml Solution
   2. Field Stain A, 1000ml Solution
4. **Advanced HIV Disease Management** 
   1. Cryptococcal Antigen Lateral Flow Assay, 50 Tests
   2. TB Rapid Diagnostic Test (RDT) Determine TB LAM Ag, 25 Tests
5. **Haematology** 
   1. Diluent, 20L (Any)
   2. Drabkin’s Solution
6. **STI**
   1. GeneXpert, Xpert® CT/NG
   2. GeneXpert, Xpert® TV
   3. Syphilis Rapid Diagnostic Test (RDT), 30 Tests
7. **Others**
   1. Examination Gloves, 50 pairs
   2. Anti-Microbial Resistance Commodities
   3. Biohazard Bags, 30 Inch, Red (100 pcs)
   4. Glass Slides (100pcs)

**1 – 7. Availability of reagents and correct use of stock cards, ELMIS - continued**

**Scoring:**

*Use the sums from table1 to calculate the score. Remember to subtract ‘NA’* ***from the 15 items for all the indicators****.*

|  |  |  |  |
| --- | --- | --- | --- |
| **Indicator** | **How to score** | **Score** | **Percentage** |
| 1.Availability of reagents for selected tests on day of visit | Sum/(15-NA) |  |  |
| 2.Stock card availability | Sum/(15-NA) |  |  |
| 3.Correct filling of stock card | Sum/(15-NA) |  |  |
| 4. Does physical count agree with stock card balance? | Sum/(15-NA) |  |  |
| 5. Is AMC in the stock card correctly calculated | Sum/(15-NA) |  |  |
| 6. Is the ELMIS/EMR correctly used and updated? | Sum/(15-NA) |  |  |

**Score:** the sum of (1 to 6) Yes (1) divided by 7 minus ‘NA’: \_\_\_\_\_ Percentage: \_\_\_\_\_

|  |
| --- |
| **II. STORAGE & LAB FACILITIES MANAGEMENT** |

**8. Cleanliness of the laboratory including storage facilities**

*Make a physical observation of the place where laboratory supplies are stored.*

|  |  |  |
| --- | --- | --- |
| **Area** | **Score** | **Comments** |
| a) The Lab store is clean and tidy |  |  |
| b) The Main store is clean and tidy |  |
| c) The Laboratory is clean and tidy |  |
| **Sum** |  |

**Score:** the sum of score for (a+b+c) storage area divided by 3 minus NA = \_\_\_ Percentage: \_\_\_\_\_\_\_\_\_\_

**9. Hygiene of the Laboratory**

*Ask to be shown the water points, hand washing and staining stations: score yes =1, No=0 and NA for not applicable*

|  |  |  |
| --- | --- | --- |
| **Indicator** | **Score** | **Comments** |
| 1. Is there running water in the lab? |  |  |
| 1. Is the hand washing area separate from the staining area? |  |
| 1. Is hand washing facilities accessible, conveniently located, hygienic and functioning? |  |
| 1. Is the drainage system of suitable standards? |  |
| 1. Is there soap for hand washing? |  |
| **Sum** |  |

**Score:** the sum of a) to d) divided by 5 minus any ‘NA’: \_\_\_\_\_ Percentage: \_\_\_\_\_\_

**10. System for storage of laboratory reagents and supplies**

*Ask to be shown around the main and e laboratory store that sores laboratory supplies and observe the following conditions, score yes =1 and No=0*

|  |  |  |  |
| --- | --- | --- | --- |
| **Indicator** | **Main Store**  **1/0** | **Lab Store**  **1/0** | **Comments** |
| 1. Are there shelves, pallets and cabinets for storage? |  |  |  |
| 1. Are reagents stored on shelves and /or in cabinets? |  |  |
| 1. Are the stock cards kept next to the reagents on the shelves or in a file? |  |  |
| 1. Are lab reagents on shelves, pallets or in cabinets stored in a systematic manner (alphabetic, usage form etc.)? |  |  |
| 1. Are the shelves and or cabinets labelled? |  |  |
| **Sum** |  |  |

**Score: Main store: the sum of a) to e) yes (1) divided by 5: \_\_\_\_\_\_\_\_Percentage\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Score: Lab store: the sum of a) to e) yes (1) divided by 5: Percentage \_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Sum of main store score results + Lab score results minus NA \_\_\_\_\_\_\_\_\_\_\_ percentage------------------**

**11. Storage conditions for laboratory supplies/reagents**

*Ask to be shown around the main store and the store for lab supplies and observe the following conditions, score Yes =1, No=0*

|  |  |  |  |
| --- | --- | --- | --- |
| **Indicator** | **Main store**  **1/0/NA** | **Lab store**  **1/0/NA** | **Comments** |
| 1. No signs of pests/harmful insects/rodents seen in the area (Check traces, droppings etc. from bats, rats, ants, etc.) |  |  |  |
| 1. Are the supplies protected from direct sunlight (Painted glass, curtains or blinds or no windows)? |  |  |
| 1. Is the temperature of the storage room monitored? |  |  |
| 1. Can the temperature of the storeroom be regulated (with Ventilation, air-condition or by opening windows)? |  |  |
| 1. Roof is maintained in good condition to avoid water penetration? |  |  |
| 1. Is storage space sufficient and adequate? |  |  |
| 1. Is the storeroom lockable and access limited to authorised personnel? |  |  |
| 1. Fire safety equipment is available and accessible (any items for promotion of fire safety should be considered) |  |  |
| 1. Is there a functioning system for cold storage (Refrigerator/Freezer)? |  |  |
| 1. Is the refrigerator/freezer kept in a well-ventilated space? |  |  |
| 1. If yes, are only reagents stored in the refrigerator – no food or beverage? |  |  |
| 1. Are the containers in the refrigerator securely capped or properly covered? |  |  |
| 1. Is the temperature of the refrigerator monitored daily? |  |  |
| 1. Boxes are not directly on the floor in the store |  |  |
| **Sum** |  |  |  |

**Score:** Main store: the sum of a) to l) yes (1) divided by 14: \_\_\_\_\_\_Percentage: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Score:** Lab store: the sum of a) to l) yes (1) divided by 14: Percentage \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Sum of main score results + Lab score results minus NA \_\_\_\_\_\_\_\_\_\_\_ percentage------------------**

**12. Storage practices of laboratory reagents**

*Checks for the listed components and score Yes =1, No=0 and NA for not applicable*

| **Indicator** | **Main store**  **1/0** | **Lab store**  **1/0** | **Comments** |
| --- | --- | --- | --- |
| 1. Is there a record for expired reagents (Check)? |  |  |  |
| 1. Is there a place to store expired reagents separately? |  |  |
| 1. Is FEFO adhered to? (*Check 5 randomly selected reagents*) |  |  |
| 1. Are reagent bottles/kits labelled with the date of opening? |  |  |
| 1. Do all bottles that have been opened have a lid on? |  |  |
| 1. Are chemicals labelled with the chemical’s name and with hazard markings? |  |  |
| 1. Are flammable chemicals stored out of sunlight and below their flashpoint, preferably in a steel cabinet in a well-ventilated area |  |  |
| 1. Are flammable and corrosive agents stored on lower shelves or separated from one another (preferably in a separate cabinet) |  |  |
| 1. Are Specific Material Safety Data Sheets available for all reagents in storage? |  |  |  |
| **Sum** |  |  |  |

**Score:** Main store: the sum of a) to e) yes (1) divided by 9 Minus NA Percentage: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Score:** Lab store: the sum of a) to e) yes (1) divided by 9 Minus NA: Percentage \_\_\_\_\_\_\_\_\_\_\_\_

**Sum of main score results + Lab score results minus NA \_\_\_\_\_\_\_\_\_\_\_ percentage\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

## III. ORDERING

**13. Reorder level calculation**

*Ask the supervisee how, s/he decides the amount to order (if they were to re-order), score appropriately. The supervisee should show knowledge about the process of using the consumption log and the stock card to extract figures such as; Stock on Hand, AMC and both Min-max for the commodity in question). Write "NR" in case the order form is missing for part a and c, Write "NR" for part b if the laboratory does not have the standard TEST MENU by level*

| **Indicator** | **Score**  **1/0** | **Comments** |
| --- | --- | --- |
| 1. Are copies (soft or hard) of last 2 complete order cycles filed and stored? |  |  |
| 1. Did the facility submit the last order to the warehouse electronically? |  |  |

|  |  |  |
| --- | --- | --- |
| **No.** | **Responses** | **Score** |
| C) | Review an order form from the most recent order cycle to check whether the person knows how to calculate the quantity to order. Let the person show you how to calculate the quantity to order for the selected reagents/test kit  Record: SOH= ………; Qty Issued out (2 months) =.........; Days out of stock=……… Adjusted AMC=…….; Maximum quantity (Adjusted AMCx4) =………  (Quantity to order = Maximum stock – Stock on hand)=…… (Score 1 if quantity to order is correct otherwise 0 or NR for missing order forms)…… …………………….. |  |
| d) | Is there a **standard** test menu at laboratory facility on the day of visit? Yes/No |  |
| e) | Review the orders and delivery notes from the most recent order cycle and complete the table below based on the first 5 items assessed under Stock Management   |  |  |  |  |  | | --- | --- | --- | --- | --- | | # | Item | **A.** Quantity Ordered | **B.** Quantity Received | Order Fulfillment Rate (B/A)x100 | | 1 |  |  |  |  | | 2 |  |  |  |  | | 3 |  |  |  |  | | 4 |  |  |  |  | | 5 |  |  |  |  | |  | Average Order Fulfillment Rate | | |  | | **Note! This section is not scored** |
|  | **Sum** |  |

**Score: Sum of item ((a+b+c+d)/4)). Percentage \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**14. Adherence to ordering procedures**

*Complete the dates of orders and delivery in the table below for the last order. The final score is 1 or 0 depending on timeliness of ordering and delivery. Write NR for missing delivery schedule, order forms or delivery forms*

| **No** | **Responses** | **Most recent order cycle** | **Comments** |
| --- | --- | --- | --- |
| 1 | Ordering schedule deadline *(check the current warehouse schedules*) |  | **Note! Timeliness of deliveries is not scored**. |
| 2 | Actual date of ordering by facility (write date stamped by in-charge) |  |
| 3 | **Was ordering timely (Y=1/N=0)** |  |
| 4 | Delivery schedule deadline (check the current warehouse schedule) |  |
| 5 | Date of delivery from warehouse |  |
| 6 | **Was delivery on schedule (timely) (Y=1/N=0)** |  |

**Score** (for timeliness of order ONLY):

Score 1 if date of ordering is equal to or in line with the ordering schedule, else 0

***Score: (for timeliness of orders) = score of \_\_\_\_\_\_\_\_\_. Percentage \_\_\_\_\_\_\_\_\_***

**15. Availability of current Annual Laboratory Procurement Plan.**

*Check to see if an Annual Laboratory Procurement Plan is available for current financial year. Score 1 if available otherwise 0.*

|  |  |  |  |
| --- | --- | --- | --- |
| **No** | **Responses** | **Score** | **Comments** |
| 1 | Availability of Annual Procurement Plan (yes=1, No=0 |  |  |

**Score: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Percentage \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

## IV. LABORATORY EQUIPMENT

**16. Developing and maintaining facility equipment inventory**

*Complete the table and score yes= 1 or No= 0*

|  |  |  |  |
| --- | --- | --- | --- |
| **No** | **Responses** | **Score** | **Comments** |
| 1 | Is the Laboratory Equipment Inventory Log (HMIS Lab 20) available? (***Check for a copy of the form and (If yes= 1, No=0)*** |  |  |
| 2 | Has the Laboratory Inventory Log been updated in the last 1 calendar year (***Check the Log was updated in the last 1 year (yes= 1, No=0)*** |  |
|  |  |  |  |

***Score: sum of 1 & 2 divided by 2 \_\_\_\_\_\_\_\_\_\_\_ Percentage \_\_\_\_\_\_\_\_\_***

**17.** **Equipment management plan to ensure functionality**

*Complete the table below Score 1/0 or NA depending on the facility situation NB: evaluate the facility based on equipment platforms available*

| **No** | **Responses** | **Score** | **Comments** |
| --- | --- | --- | --- |
| 1 | Is relevant major equipment service information readily available in the laboratory (look out for the **Equipment Mgt File/ Book of life** for CD4, Haematology, clinical chemistry/ colorimeter and microscope) (Score 1 based on availability of the above equipment information)  **NB:** For any available equipment all service information must be available to score 1 |  |  |
| 2 | Is major equipment routinely serviced according to schedule and documented in the service logs? (check records and any available platform need to be a Yes to score a 1) |  |
| 3 | Is internal quality control (IQC) performed for CD4, Haematology and clinical chemistry/colorimeter equipment, documented, and reviewed prior to release of patient results? (**Review the last 5 days the test were done (look in the lab register) (*check records and any available platform need to be a Yes to score a 1)*** |  |
| 4 | Are the manufacturers’ operator manuals for major equipment (CD4, Haematology and clinical chemistry/calorimeter) readily available? **(*check records and any available platform need to be a Yes to score a 1)*** |  |

**Score: Sum (1 to 4) yes (1): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_percentage\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**18. Equipment Functionality**

*Has the laboratory provided uninterrupted testing services, with no disruptions due to equipment downtime since the last visit (Please note for baseline visit look at the past 1 year)? Yes=1, No =0, N/A = not applicable (not available). NB: Verify from the equipment maintenance log and record the equipment downtime in months if there were some interruptions.*

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Equipment** | **Is the equipment functional? (Score 1 if yes and 0 if not)** | **Duration of downtime (months)** | **Non-functional due to equipment(hardware/software) (Tick)** | **Non-functional due to reagents (Tick)** | **Non-functional due to other factors e.g. power, manpower** | **Response time (months)** |
| 1.CD4 (Specify) |  |  |  |  |  |  |
| 2.Hematology (Specify)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |  |  |  |  |  |  |
| 3.Microscope |  |  |  |  |  |  |
| 4. Centrifuge |  |  |  |  |  |  |
| 5.Hb meter (Specify)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |  |  |  |  |  |  |
| 6.Chemistry (Specify)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |  |  |  |  |  |  |
| 7. GeneXpert (TB, EID. VL, HPV) |  |  |  |  |  |  |
| 8. M-Pima |  |  |  |  |  |  |
| *(Other – include option to type & enter)* |  |  |  |  |  |  |
| *(Other – include option to type & enter)* |  |  |  |  |  |  |
| *(Other – include option to type & enter)* |  |  |  |  |  |  |

**Score:** the sum (1 to 8)/8 minus NA: Percentage: \_\_\_\_\_

**19. Equipment utilization for; chemistry, haematology and CD4 platforms.**

*Note: Excluding general purpose equipment like microscopes.*

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **1.CD4 Equipment** | | | | | | | | |
| **A** | **B** | **C** | **D** | **E** | **F** | **G** | **H** | **I** |
| **Equipment name** | **Throughput (per day)** | **Average no. of days running per month** | **Average actual output (lab registers)** | **Average Expected out (B\*C)** | **% Utilization((D/E)\*100)** | **If "F" more than "70%" score "1" else "0)** | **Capacity of equipment according to User** | **If B=H score "1 "else "0"** |
| BD FACSPresto | 60 |  |  |  |  |  |  |  |
| Pima Analyzer | 20 |  |  |  |  |  |  |  |
| (Other – include option to type & enter) |  |  |  |  |  |  |  |  |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **2.Chemistry Equipment** | | | | | | | | |
| **A** | **B** | **C** | **D** | **E** | **F** | **G** | **H** | **I** |
| **Equipment name** | **Throughput (per day)** | **Average no. of days running per month** | **Average actual output (lab registers)** | **Average Expected out (B\*C)** | **% Utilization((D/E)\*100)** | **If "F" more than "70%" score "1" else "0)** | **Capacity of equipment according to User** | **If B=H score "1 "else "0"** |
| ROCHE COBAS C311 | 520 |  |  |  |  |  |  |  |
| ROCHE COBAS C111 | 450 |  |  |  |  |  |  |  |
| COBAS 6000 | 8000 |  |  |  |  |  |  |  |
| Humastar 80 | 640 |  |  |  |  |  |  |  |
| Humastar 200 | 1600 |  |  |  |  |  |  |  |
| Humastar 600 | 4800 |  |  |  |  |  |  |  |
| *(Other – include option to type & enter)* |  |  |  |  |  |  |  |  |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **3.Heamatology Equipment** | | | | | | | | |
| **A** | **B** | **C** | **D** | **E** | **F** | **G** | **H** | **I** |
| **Equipment name** | **Throughput (per day)** | **Average no. of days running per month** | **Average actual output (lab registers)** | **Average Expected out (B\*C)** | **% Utilization((D/E)\*100)** | **If "F" more than "70%" score "1" else "0)** | **Capacity of equipment according to User** | **If B=H score "1 "else "0"** |
| Humacount 30TS | 240 |  |  |  |  |  |  |  |
| Humacount 60TS | 480 |  |  |  |  |  |  |  |
| Mindray BC 3200 | 480 |  |  |  |  |  |  |  |
| Mindray BC 3000 | 480 |  |  |  |  |  |  |  |
| Mindray BC 2800 | 240 |  |  |  |  |  |  |  |
| Mindray BC 2300 | 240 |  |  |  |  |  |  |  |
| Medonic M-Series | 640 |  |  |  |  |  |  |  |
| Sysmex POCH-100i | 200 |  |  |  |  |  |  |  |
| Sysmex XP-300/500i | 480 |  |  |  |  |  |  |  |
| Nihon Kohden | 480 |  |  |  |  |  |  |  |
| *(Other – include option to type & enter)* |  |  |  |  |  |  |  |  |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **4.Point of Care Equipment** | | | | | | | | |
| **A** | **B** | **C** | **D** | **E** | **F** | **G** | **H** | **I** |
| **Equipment name** | **Throughput (per day)** | **Average no. of days running per month** | **Average actual output (lab registers)** | **Average Expected out (B\*C)** | **% Utilization((D/E)\*100)** | **If "F" more than "70%" score "1" else "0)** | **Capacity of equipment according to User** | **If B=H score "1 "else "0"** |
| GeneXpert (16 Module) | 16 |  |  |  |  |  |  |  |
| GeneXpert (4 Module) |  |  |  |  |  |  |  |  |
| M-Pima |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| (Other – include option to type & enter) |  |  |  |  |  |  |  |  |

**Score: Chemistry; Sum (G & I)/2\_\_\_\_\_\_\_\_\_\_\_ percentage\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Score: CD4; Sum (G & I)/2\_\_\_\_\_\_\_\_\_\_\_ percentage\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Score: Haematology; Sum (G & I)/\_\_\_\_\_\_\_\_\_\_\_ percentage\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Score: Point of Care; Sum (G & I)/\_\_\_\_\_\_\_\_\_\_\_ percentage\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Sum of 4/4 minus NA \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Percentage\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

## V. LABORATORY INFORMATION SYSTEM

**20. Availability & Use of Laboratory Data collection tools**

*Check and verify to see that the documents are the official and current documents for MoH; yes= 1, No= 0 (add all numbers for all the tools) (N/A for facilities that don’t perform a particular test Category)*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No** | **Item** | **Available?**  **Scores (1/0)** | **In use?**  **Score**  **(1/0)** | **Comments** |
| A | HMIS Lab 001 General Laboratory Request Form |  |  |  |
| B | HMIS Lab 002 Laboratory Specimen Reception Register |  |  |
| C | HMIS Lab 004 General Laboratory Test Result Form |  |  |
| D | HMIS Lab 005 Laboratory Specimen Referral Register |  |  |
| E | HMIS Lab 010 HC II & HC III Daily Activity Register for General Analysis |  |  |
| F | HMIS Lab 011 HC IV & Gen Hosp Daily Activity Register for General Analysis |  |  |
| G | HMIS Lab 012 Hosp Gen Clinical Chem Register for Daily Activity & General Analysis |  |  |
| H | HMIS Lab 014 Daily Activity Haematology Register |  |  |
| I | HMIS Lab 015 Daily Activity Register for Viral Load, CD4, TB LAM & CrAg |  |  |
| J | HMIS Lab 016 Daily Activity Register for HIV Tests |  |  |
| K | HMIS Lab 019 Facility Biosafety & Biosecurity Incident Register |  |  |
| L | HMIS Lab 020 Laboratory Equipment Inventory Log |  |  |
| M | HMIS Lab 022 Laboratory Equipment Breakdown Register |  |  |
| N | HMIS Lab 023 Laboratory Equipment Maintenance Log |  |  |
| O | HMIS PHAR 021 Bimonthly Report & Order Calculation Form for HIV Test Kits |  |  |
| P | HMIS PHAR 023 Laboratory Order Form |  |  |
|  | **Sum** |  |  |

**Score:** Available: the sum of a) to p) yes (1) divided by 16 Minus NA Percentage: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Score:** In use: the sum of a) to p) yes (1) divided by 16 Minus NA: Percentage \_\_\_\_\_\_\_\_\_\_\_\_

**Sum of Available score results + In use score results \_\_\_\_\_\_\_\_\_\_\_ percentage\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**21. Availability of HMIS 105 reports**

*Check for availability of the specified form and score 1=Yes (if available and seen 0=No (not available or not seen)*

|  |  |  |  |
| --- | --- | --- | --- |
| **No** | **Item** | **Score** | **Comments** |
| 1 | Does the laboratory keep copies of the Laboratory HMIS 105 Health Unit Outpatient Monthly Report Section 10 pages 26 & 27 sent to the facility in-charge |  |  |
| 2 | Does the facility have HMIS 105 Monthly reports for the previous 2 months (verify, if yes Score 1 otherwise, score 0) |  |
|  | **Sum** |  |  |

**Score**: the sum of 2 divided by 2\_\_\_\_\_ Percentage: \_\_\_\_\_

**22. Timeliness of HMIS 105 reports**

*Please check the dates the reports for the previous month were submitted, if submitted on time score 1 otherwise 0 (NB: Timely reporting means; 5th, 7th and 14th for facility, HSD and district respectively)*

|  |  |  |  |
| --- | --- | --- | --- |
| **No** | **Item** | **Score** | **Comments** |
|  | Report schedule data (write the expected reporting date) |  |  |
| 1 | Date HMIS 105 Section 10 pages 26 & 27 report was submitted to the district |  |
|  | Was the HMIS 105 Section 10 pages 26 & 27 report submitted to the health sub district on time (Yes=1/No=0 |  |

Score; ----------------------------------------------percentage-----------------------------------------------------------

**23. Completeness and accuracy of HMIS 105 report** **(Section 6 and 10)**

Date report was filled (use last report not more than 2 months ago): ……. /……. /…….

**Note: for this indicator, an average of the score in parts a, b & c contribute to the final score!**

1. **Completeness of the HMIS 105 report**

|  |  |
| --- | --- |
| **Item** | **Score** |
| 1. HMIS 105 report section 6 is completely filled (**No blanks left**) then score 1 ELSE score =0 |  |
| ii) HMIS 105 report section 10 is completely filled (**No blanks left**) then score 1 ELSE score =0 |  |
|  |  |

**Sum of (i & ii divided by 2) .................................**

1. **Check the accuracy of the last HMIS 105 report (Yes=1/ No=0):**

Assessor: check the previous HMIS 105 (stock status report) and the Stock card/book record and compare values during the reporting period. If the data in the report agree (100%) score 1 if not score 0. If either the HMIS 105 report or the stock card or book is missing score 0

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Stock Status** |  | **Reported in HMIS 105** | | | | **Actual (recounted) in stock card/book** | | |  |
|  | **Is the previous HMIS 105 report and the stock card/book for the following commodities available?**  **(1/0/NA)** | **Quantity consumed** | **No. Of days out of stock** | **Stock on hand** | **Quantity consumed** | | **No. Of days out of stock** | **Stock on hand** | **Do the report**  **and stock card/ book**  **data agree?**  **(1/0/NA)** |
| 1. Determine HIV Screening test, tests |  |  |  |  | |  |  |  |  |
| 1. Stat -pack HIV Confirmatory rapid tests, tests |  |  |  |  | |  |  |  |  |
| 1. SD-Bioline HIV RDT Tie-breaker test |  |  |  |  | |  |  |  |  |
| 1. CD4 reagent (Specify)………………………. |  |  |  |  | |  |  |  |  |
| 1. Malaria Rapid Diagnostic Test (RDT), 25 Tests |  |  |  |  | |  |  |  |  |
| 1. GeneXpert Xpert MTB/RIF Ultra Assay, 50 Cartridges with Sample Reagent, 1 Kit |  |  |  |  | |  |  |  |  |
| 1. HIV/Syphilis Duo Kit |  |  |  |  | |  |  |  |  |
| 1. Hepatitis B Rapid Diagnostic Test (RDT) HBsAg, 100 Tests |  |  |  |  | |  |  |  |  |
| 1. Blood 450 ml |  |  |  |  | |  |  |  |  |
| **Sum** | | | | | | | | |  |
| **Accuracy = Sum/(7 ‐ NA)** | | | | | | | | |  |

1. **Check the accuracy of the last HMIS 105 report (Yes=1/ No=0):**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Service statistics** | **Is information on**  **Service statistics**  **available from**  **the last report**  **(1/0/NA)** | **No of tests as reported on HMIS 105** | **No of tests as recorded in lab register in that month** | **Do the two agree? (1/0/NA)** |
| 1. Blood slide (Malaria) |  |  |  |  |
| 1. HIV (Determine) |  |  |  |  |
| 1. TB (GeneXpert ) |  |  |  |  |
| **Sum** | | | |  |
| **Accuracy = Sum/(6 ‐ NA)** | | | |  |

**Score**: the sum of scores (a+ b +c) divided by 3 \_\_\_\_\_\_\_\_\_\_\_\_\_Percentage: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Comments:**

**24. Use of Laboratory data**

*Check for the presence of any of the* ***laboratory*** *monthly statistics displayed either in table/graph/chart or map. Any display of the above statistics in the past 3 months, is awarded a score of 1 otherwise 0*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No** | **Item** | 1 | 2 | Comments |
|  |  | Available? Yes=1/No=0 | Updated in last quarter? (Yes=1/NO=0 |  |
| 1 | Table/graph/chart/map |  |  |  |
|  | **Sum** |  |  |

**Score: sum of 2 divided by 2\_\_\_\_\_score 1 percentage 100\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Comments:**

**25. Filing of reports**

*Assessor: Ask to see a copy of the* ***previous*** *month, score 1 if seen otherwise 0*

1. ***For HMIS 105*** ***(Section 10) monthly reports*** *should have the name of the health facility, the date completed, tests performed,*
2. ***For HMIS Lab 024 Bimonthly Report & Order Calculation Form for HIV Test Kits;*** *Number of kits at the beginning of report period, totals received, totals used, quantity required and summaries of tests by purpose.*
3. ***For HMIS 025 Laboratory Order Form****, in addition to the facility name, you require the total value of quantities ordered.*
4. ***For HMIS PHAR 020 Requisition & Issue vouchers****: Check for quantity consumed, quantity on hand, quantity required, requesting and authorising officer details,*

|  |  |  |  |
| --- | --- | --- | --- |
| **No** | **Item** | **1/0/NA** | Comments |
| 1 | HMIS 105 (Section 10) monthly reports (Last 2 months) |  |  |
| 2 | HMIS Lab 024 Bimonthly Report & Order Calculation Form for HIV Test Kits (Last 2 order cycles) |  |
| 3 | HMIS 025 Laboratory Order Form (Last 2 order cycles) |  |
| 4 | HMIS PHAR 020 Requisition & Issue vouchers (Last 2 weeks) |  |
|  | **Sum** |  |  |

**Score:** the sum of 4/4 ----------------- Percentage: \_\_\_\_\_

**Lab SPARS Dashboard and Spider Graph**

| **Lab SPARS Indicators** | **Score** | **%** |
| --- | --- | --- |
| **Stock management (7)** |  |  |
| 1.Availability of reagents for selected tests on day of visit |  |  |
| 2. Stock card availability |  |  |
| 3.Correct filling of stock card |  |  |
| 4. Does physical count agree with stock card balance? |  |  |
| 5. Is AMC in the stock card correctly calculated |  |  |
| 6. Is the ELMIS/EMR correctly used and updated? |  |  |
|  |  |  |
|  |  |  |
| **TOTAL (Add 1-6)** |  |  |
| **Spider Graph Score (TOTAL1/6‐NA) x 5 =** |  |  |
| **Storage Areas & Lab Facilities Management (5 )** |  |  |
| 8.Cleanliness of the laboratory including storage facilities |  |  |
| 9.Hygiene of the Laboratory |  |  |
| 10.System for storage of laboratory reagents and supplies |  |  |
| 11.Storage conditions for laboratory supplies/reagents |  |  |
| 12.Storage practices of laboratory reagents |  |  |
| **TOTAL** (Add 10-14) |  |  |
| **Spider Graph Score (TOTAL2/5‐NA) x 5 =** |  |  |
| **Ordering (3)** |  |  |
| 13. Reorder level calculations |  |  |
| 14.Adherence to ordering procedures |  |  |
| 15. Availability of current Annual Laboratory Procurement Plan |  |  |
| **TOTAL (Add-15-17)** |  |  |
| **Spider Graph Score (TOTAL3/3‐NA) x 5 =** |  |  |
| **Laboratory Equipment (4)** |  |  |
| 16. Developing and maintaining facility equipment inventory |  |  |
| 17. Equipment management plan to ensure equipment functionality |  |  |
| 18. Equipment Functionality |  |  |
| 19. Equipment utilization |  |  |
| **TOTAL (Add 18-21)** |  |  |
| **Spider Graph Score (TOTAL4/4‐NA) x 5 =** |  |  |
| **Laboratory Information systems (6)** |  |  |
| 20. Availability of laboratory data collection tools |  |  |
| 21. Availability of HMIS 105 reports |  |  |
| 22. Timeliness of HMIS 105 reports |  |  |
| 23. Completeness and accuracy of HMIS 105 report |  |  |
| 24. Use of Laboratory data |  |  |
| 25. Filing of reports |  |  |
| **TOTAL ( Add 22-27)** |  |  |
| **Spider Graph Score (TOTAL5/6‐NA) x 5 =** |  |  |

| **Assessment area** | **Maximum score (minus-NA)** | **Total scored (Y-Maximum score)** | **SPIDO graph value scaled** |
| --- | --- | --- | --- |
| Stock Management | 7 | Y/7 | ((Y/7)\*5)) |
| Storage Areas & Lab Facilities Management | 5 | Y/5 | ((Y/5)\*5)) |
| Ordering | 3 | Y/3 | ((Y/3)\*5)) |
| Laboratory Equipment | 4 | Y/4 | ((Y/4)\*5)) |
| Laboratory Information systems | 6 | Y/6 | ((Y/6)\*5)) |
| **Total Spider Graph Score (Max score is 25)** | | |  |

**Lab SPARS Key Assessment Areas**