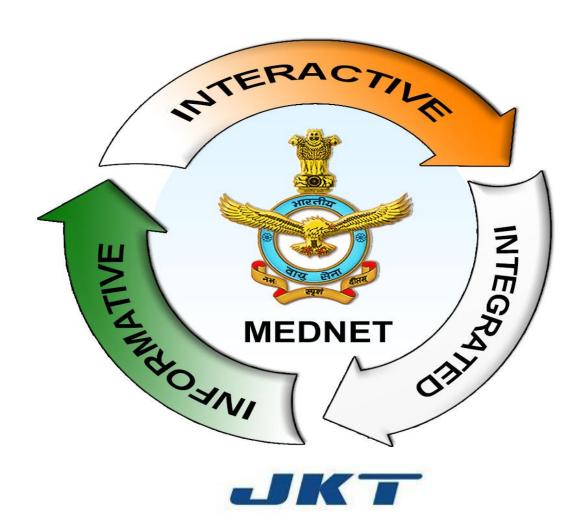
IAF MEDNET

Station Medicare Centre

Laboratory Module

User Manual



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Introduction

Station Medicare Centers (SMCs) are the primary Medicare facilities at Air Force Wings and Stations. SMCs are small hospitals. They mainly function as OPD polyclinics with comprehensive lab, and provide physiotherapy, radiology and dental services. Additionally, they have medical admin module meeting stores, dispensary, aviation medicine, medical stats, and medical boards. The inpatient facility is limited.

The requirement is to develop web based application software integrated with existing available and underdevelopment IAF Medicare modules. This software is similar to hospital information system software in terms of generic content but the scope, functionality, presentation and outcomes will be different.

The software is smart, interactive, user friendly with more prompts to assist doctors and paramedics in all respects of medical care. Medical stores module provides for modern inventory control and cost analysis. Medical exam and medical board provides for integration with existing database software (Oracle based) and document management software (Archi doc).

The software is a comprehensive tool not only for quick paperless day to day functioning of the SMC but also provides for data search, analysis of time and trends, across all relevant fields to give meaningful health data for further research, analysis and planning.





Laboratory Module

- Investigations (Laboratory, ECG and X-Ray) are usually available at the SMC level.
- ➤ The laboratory carries out routine tests on blood/ urine/stool/sputum and biochemical investigations (blood sugar, Serum Cholesterol) etc.
- > Blood groups of personnel posted to units are maintained group wise.
- > X-Ray and ECG maintain records of particulars, site of X-Ray, findings.
- > Requisition for these investigations is done on pre-designed forms.
- The reports are given to the patient. These reports have medico legal implications and are confidential.
- After the investigation the lab report must go to the concerned medical officers for approval, and compatible to capture digital signature.
- ➤ The Lab reports will also get attached to individuals' medical history.
- ➤ Lab report will display the normal ranges of value against the actual result.
- Indent send to dispensary for consumables.
- Receive the samples and send reports to the institutes for external quality assurance; institute publishes the results on internet.



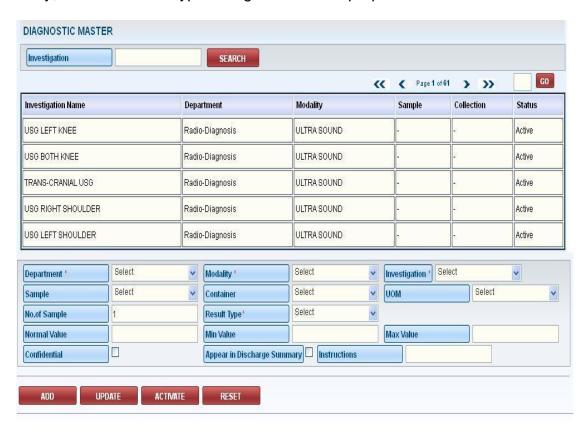


Diagnostic Master

User configures the investigation name with sample, container, modality, result type etc. It's a onetime activity, later on it can be updated if needed.

Here user maps investigation name with department and modality, which reflects at transaction screens such as investigation requisition, sample collection etc.

Again, sample of investigation, container of sample is configured here. Result type of investigation with normal range, UOM is configured here. At the time of result entry, based on result type configured result is prepared.



Investigation Name: This is an enterable field. User can enter the investigation Name. i.e., Hemoglobin, TLC, DLC etc. to search the desired investigation record.

Textbox and Search (Button): Text box is to write the value you are searching or looking for. Based on given criteria of Investigation name search result appears in the grid.

Grid: All the fields are displayed on the basis of any given criteria. All fields are Read only.





Department: This is a list of elements. The value comes from department master (where department type = Diagnostic) It cannot have a null value.

OK Button and Text Box: If user wants to switch directly to any particular page no, then he can simply enter the page no. in the given text box and click on Ok Button.

Modality: This is a list of elements. Here user selects the modality based on the selected Lab. For example, if Lab is selected as Pathology then its modality may be Hematology, Bio-chemistry, and Serology etc. It cannot have a null value.

Investigation: User can select the test name from the given list, this will come from Based on department and modality, and it can't remain blank.

Investigation Name: This is an enterable field. User will enter the investigation name. It cannot be a null value.

Container: This is a list of element. User can select the Container of the sample for the Investigation entered. The value comes from Container master. It can have null value only if Lab Modality selected as "Radiology or ECG".

Sample: This is a list of elements. User can select the sample name of Investigation entered. The value will come from Sample master. It can have null value only if modality selected as "Radiology or ECG".

Collection: User can select the collection details from the given list, this will come from collection screen, and it can't remain blank.

Unit Name: User can select the unit details from the given list, this will come from unit screen, and it can't remain blank.

UOM: This is a list of elements. User can select the unit of measurement for Investigation entered. Data will come from unit master. It cannot be a null value if Investigation type is selected as "Normal value."

Sample Quantity: User can write how much sample is required for the test, it can't remain blank.

Result: This is a list of elements. System defined value is displayed.

- 1. Single Parameter.
- 2. Multiple Parameters.
- 3. Template value.

GO: Button is enabled if 'Result type' selected as Multiple Parameter or Template. On clicking of the button, if investigation type selected as "Multiple Parameter" then "Multiple parameter entry" screen will appear.





And if selected as "Template Value" then new screen will appear to select the investigation template.

Investigation Type: User can select from the given list, it contains-

- 1. Single Parameter
- 2. Multiple Parameter
- 3. Template
- 4. Sensitive,

and it can't remain blank.

Normal Value: User can write normal value details for each test, it can't remain blank.

Min Value: User can write minimum value for each test, it can't remain blank.

Max value: User can write maximum value for each test, it can't remain blank.

Result Type: User can select from the given list, it contains-

- 1. Numeric
- 2. Numeric + String, and it can't remain blank.

Confidential: User can check it either it is confidential or not.

Appear in Discharge Summary: Specifies whether the test result should appear in the summary or not.

Instructions: User can enter the test related instructions, which will get printed with test results.

Add: All records are added in table on click.

Reset: It clears the present data (unsaved data) entered in screen.

Update: It updates the selected record.

Activate/ Inactivate: It allows the user to activate or inactivate the record.

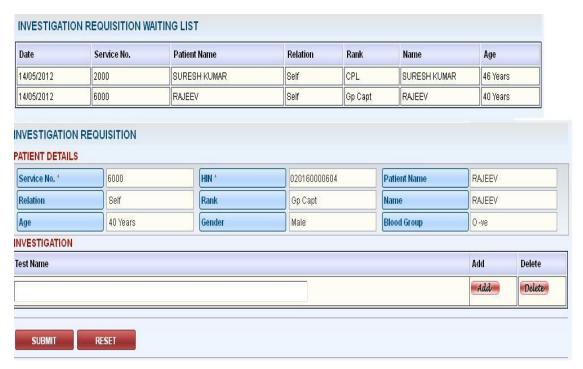




Investigation Requisition

SMC needs to maintain the Patient's diagnostics records, Patient's diagnostics history records etc. efficiently at their hospital. At any given time the Diagnostics Module should be able to get the correct information from each of their location.

This screen captures the order book for investigation for the outpatient. This screen is used for maintaining order booking for investigations. This screen contains information of Clinical notes, Prescribed by and test name.



Service No: User can write Service no based on service no Patient name list appears. It can't remain blank.

Patient Name: User can select patient name from the list, it can't remain blank.

HIN No: It is patient HIN No, it can't remain blank.

Name: It is patient name, it can't remain blank.

Gender: It is patient sex, it can't remain blank.

Age: It is patient age, it can't remain blank.

Religion: It is patient religion, it can't remain blank.

Investigation: User can order test details, it can't remain blank.

Add: It adds a new row.





Delete: It deletes the row.

Submit: By clicking on submit button user can save the data.

Reset: Clicking on reset button, will clear the current or existing data.





Pending For Sample Collection

SMC needs to maintain the Patient's diagnostics records, Patient's diagnostics history records etc. efficiently at their hospital. At any given time the Diagnostics Module should be able to get the correct information from each of their location.

Pending For Sample Collection Search

It displays the list of patient pending for sample collection. Data is fetched from the requisition raised for investigation from OPD or ward. By default screen displays the current date's requisition. However user has an option to view previous dates requisition or can filter the data as per the given criteria.

The grid displays the filtered records. On click on any patient records in the grid 'Sample Collection' screen opens to enter the sample collection details.



Search: User can search the records based on Order from date, Order to date, Patient type, Service No, HIN No, Order by, Service Person Name, Patient Name, and A&D No Wise.

GRID: Based on search criteria data is displayed in the form of table. At a time only five (5) records are displayed. To navigate or look for the next record, pagination (the system of numbering pages) is there. User can select any order then user can enter sample validation details.





From Date: It is a selectable field. Default date should be Current server date. User can select the previous date. It cannot have a null value.

To Date: It is a selectable field. Default date should be Current server date. User can select the previous date. It cannot have a null value.

Service No.: It is an enterable field. User can enter the Service no. if service no. wise search is required. It can have a null value.

Requisition By: It is a selectable field. User can select requisition raised by OPD or ward to search if required. It can have a null value.

Name: It is an enterable field. User can enter the Service Personnel name, if required to search. It can have a null value.

Patient Name: It is an enterable field. User can enter the Patient name, if required to search. It can have a null value.

Modality: It is a selectable field. User can select Modality, if required to search. It can have a null value.





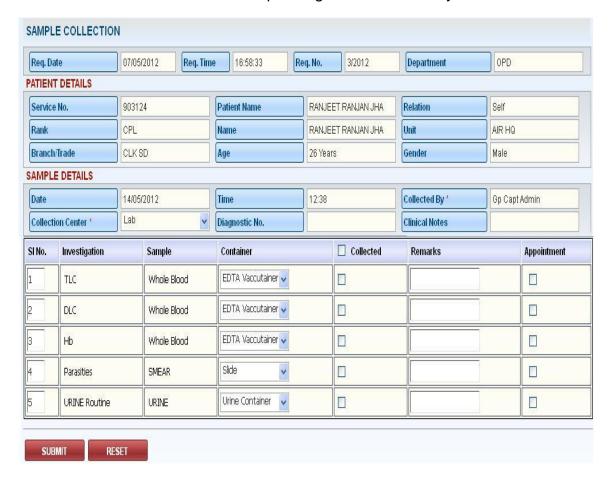
Sample Collection

The screen facilitates the user to capture sample collection details. It displays the investigation requisition date, time, No. raised by department with patient demographic details for user's reference.

At sample collection block, system captures current server date & time, user's name and display system generated diagnostic No.

Investigation name is displayed in the grid with sample name & container, which has been mapped at diagnostic master. User can just check the collected check box for which sample has to be collected.

On submit button data is moved to pending list for result entry.



Sample Collection Date: It is the system date and today's date, user can't change date and it can't remain blank.

Sample Collection Time: It is the system time and present time, user can't change time and it can't remain blank.





Service No.: User can write Service no based on service no Patient name list will appear. It can't remain blank.

Patient Name: User can select patient name from the list, it can't remain blank.

HIN No: It is patient HIN No, it can't remain blank.

Name: It is patient name, it can't remain blank.

Gender: It is patient sex, it can't remain blank.

Age: It is patient age, it can't remain blank.

Religion: It is patient religion, it can't remain blank.

Investigation Collected By: Default login person name is displayed, if user wants to change name he can. It can't remain blank.

Diagnostic No.: User can enter serial number manually.

Collection Center: It is a display field. System will display the collection center name.

Clinical Notes: It is a display field. The value will come from OPD or Ward.

Grid Values

Remarks: It is an enterable field. User can enter any remark related to the particular sample. It is a display field. System generated serial number is displayed in the column. It is a display field.

Investigation Name: It is a display field. System displays Investigation name of the selected requisition.

Sample: It is a display field. System will display sample name for the investigation name displayed in the row. Value will come from Investigation master.

Container: It is a display field. System displays Container name for the investigation name displayed in the row. Value will come from Investigation master.

Collected: It is a logical field. User can check it, if the sample is collected.

Remarks: It will be an enterable field. User can enter any remark related to the particular sample.

Submit: By clicking on save button user can save the data.





Reset: Clicking on reset button, will clear the current or existing data.





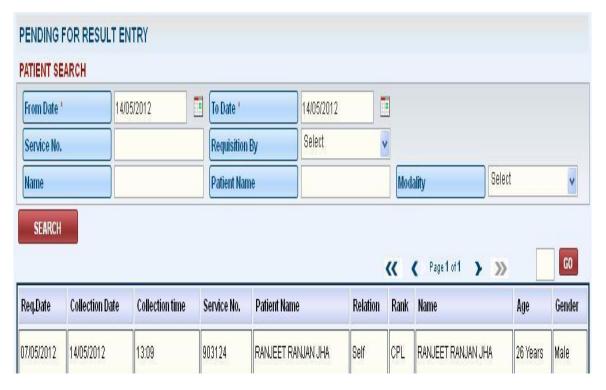
Pending For Result Entry

Capture the Result for the requisition whose sample has been collected.

It displays the record of patient whose sample has been collected and result not yet entered. Data is fetched from the sample collection table.

By default screen is displayed with the current date's pending records. However user has the option to view previous date's records or can filter the data as per the given criteria.

The grid displays the filtered records. On click on any patient records in the grid 'Result entry' screen opened to enter the result details.



Pending For Result Entry Search

Captures the Result of the samples which is validated.

Search: User can search the records based on Order from date, Order to date, Patient type, Service No, Patient Name, A&D No, Order by, Sub Department, Service Person Name, and HIN No Wise.

GRID: Based on search criteria data is displayed in the form of table. At a time only five (5) records are displayed. To navigate or look for the next record pagination (the system of numbering pages) is there. User can select any order then user can enter result entry details.





From Date: It is a selectable field. Default date should be Current server date. User can select previous date. It cannot have a null value.

To Date: It is a selectable field. Default date should be Current server date. User can select previous date. It cannot have a null value.

Service No: It is an enterable field. User can enter the Service no. if service no. wise search is required. It can have a null value.

Requisition By: It is a selectable field. User can select requisition raised by OPD or ward to search, if required. It can have a null value.

Name: It is an enterable field. User can enter the Service Personnel name, if required to search. It can have a null value.

Patient Name: It is an enterable field. User can enter the Patient name, if required to search.

It can have null value.

Modality: It is a selectable field. User can select Modality, If require to search. It can have a null value.

Search: Based on from date, To date and any other criteria given above grid displays the record. It shows only pending tests for result entry on given criteria.





Result Entry Detail

This screen facilitates user to capture result details. It displays the sample collection date and diagnostic No. with patient demographic details for user's reference.

At result entry block, system captures the current server date & time, user's name.

Investigation name is displayed in the grid with sample name, UOM and normal range which has been mapped at diagnostic master. User has to enter the result in the grid itself for single parameter & multiple result type.

For template type of result, on click of result button system opens a new screen with predefined template for that result having option to modify it.

On submit button data will move to pending list for result validation.







Collection Date: It is a display field. System displays the sample collection date of the selected requisition.

Diagnostic No.: It is a display field. System displays the diagnostic no. of the selected requisition.

Patient Details

Patient Details: All are display fields. System displays Patient details (Service No., Patient Name, Relation, Rank, Name, Unit, Branch/Trade, Age, and Gender) of the selected requisition.

Clinical Notes: The values come from OPD Main.

Result Entry Details

Date: It is a display field. System displays the Current server date.

Time: It is a display field. System displays the current server time.

Entered By: It is a display Field. System displays the Medical assistant name based on the login.

Grid Values

SI No.: It is a display field. System generated serial number is displayed in the column

Test Name: It is a display field. System displays Investigation name of the selected requisition.

Sample: It is a display field. System displays sample name for the investigation name displayed in the row. Value will come from diagnostic master. It can have null value if result type entered as "Template" in diagnostic master.

Result: It is an Enterable field. User can enter the Result of the selected Investigation (Test) name. It can have a null value. However in case of multiple row one result entry is mandatory to save the record.

If result type is a template then two buttons will appear "Click here to fill Result" –It displays the template in new screen. User can enter the value in the template and save it.

- Upload/ View File" It enables the user to upload/ view reports/ scanned Image.
- UOM It is a display field. Value is fetched from the diagnostic master based on the investigation selected.





Normal Range: It is a display field. System displays the normal range for the investigation name displayed in the row. Value comes from diagnostic master.

Remarks: It is an enterable field. User can enter any remark here. It can have a null value.

Sample Rejected: It is a selectable field. If the sample being unfit for result then user can select the same then this gets removed from result entry and user needs to raise the fresh requisition for the particular test through Investigation Requisition.

Reset: On click of reset button all fields are reset.

Submit: On click of submission button record are saved.





Pending For Result Validation

Search for the details of entered result pending for validation. The screen is enabled only to the medical officers.

It displays the record of patient whose result has been entered and results not yet validated by the medical officer. Data is fetched from the result entry table.

By default screen is displayed the current date's pending records. However user has an option to view previous date's records or can filter the data as per the given criteria.

The grid displays the filtered records. On click on any patient records in the grid 'Result validation' screen opens to validate the result details.

Pending For Result Validation Search

Capture the Result of the samples which is result pending.



Search: Based on from date, To date and any other criteria given in above grid is displayed the record. It shows data (requisition) whose sample has been collected and result not yet entered.

Grid: When user clicks on any patient in the grid 'Result Validation' screen is opened. System displays the details Diag. No, Result Date, Service No., Patient Name, Relation, Rank, Name, and Modality.

All fields are Read only. On click of any grid value, 'Result validation' screen appears.

From Date: It is a selectable field. Default date is Current server date. User can select previous date. It cannot have a null value.





To Date: It is a selectable field. Default date is Current server date. User can select previous date. It cannot have a null value.

Service No.: It is an enterable field. User can enter the Service no. if required to search. It can have a null value.

Requisition By: It is a selectable field. User can select requisition raised by OPD or ward to search is required. It can have a null value.

Name: It is an enterable field. User can enter the Service Personnel name, if required to search. It can have a null value.

Patient Name: It is an enterable field. User can enter the Patient Name, if required to search. It can have null value.

Modality: It is a selectable field. User can select modality wise sample to enter the result. It can have a null value.





Result Validation Detail

This screen facilitates user to capture result validation details. It displays result date & time, diagnostic no. and result prepared by patient demographic details for user's reference.

At result validation block, system captures current server date & time, user's name

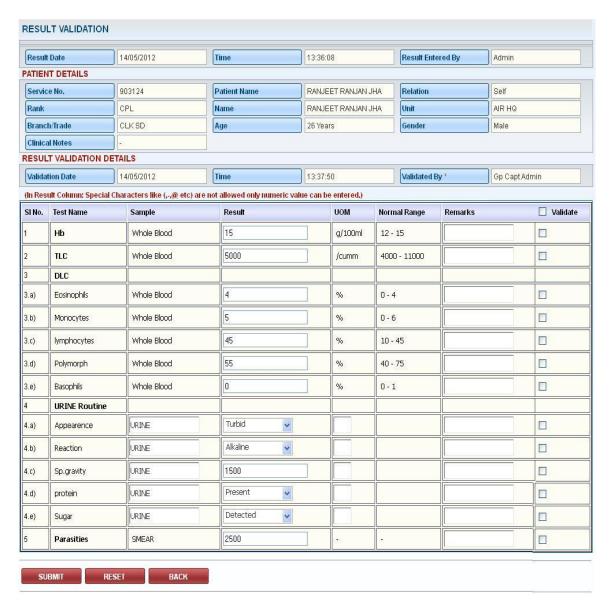
Investigation name is displayed in the grid with sample name, UOM and normal range which has been mapped at diagnostic master and the pre-entered result.

System facilitates the user (medical officer) to modify result, if required and validate it by checking the 'validate' check box available at the screen.

On submit button data is moved to result printing screen.







Result Date: It is a display field. System will display the result entry date of the selected requisition. It will be display field. System will display result entry time of the selected requisition.

Result Time: It is a display field. System displays the result entry date of the selected requisition.

Diagnostic No.: It is a display field. System displays diagnostic no. of the selected requisition.

Entered By: It is a display field. System displays the name of the medical assistant who has entered the result.

Patient Details: All are display fields. System displays Patient details (Service No., Patient Name, Relation, Rank, Name, Unit, Branch/Trade, Age, and Gender) of the selected requisition along with Clinical Note.





Result Validation Details

Result Validation Date: It is a display field. System displays Current server date.

Time: It is a display field. System displays current server time of the selected requisition.

Validated By: It is a Display Field.

Grid Values

SI No.: It is a display field. System generated serial number is displayed in the column. It is a display field.

Test Name: It is a display field. System displays Investigation name of the selected requisition.

Sample: It is a display field. System displays sample name for the investigation name displayed in the row. Value comes from diagnostic master. It is an Enterable field.

It displays the result of investigation which has been entered by MA through result entry screen.

UOM: It is a display field. Value is fetched from the diagnostic master based on the investigation selected. It cannot have a null value.

Normal Range: It is a display field. System displays the normal range for the investigation name displayed in the row. Value comes from diagnostic master. It is an enterable field. User can enter any remarks here. It can have a null value.

Remarks: It will be an enterable field. User can enter any remarks here. It can have null value.

Validate: User can select the same to validate the result.

Reset: On click of reset button all fields are reset.

Submit: On click of submission button record is submitted to Mednet db.





Report Printing

SMC needs to maintain the Patient's diagnostics records, Patient's diagnostics history records etc. efficiently at their hospital. At any given time the Diagnostics Module should be able to get the correct information from each of their location.

Report Printing Search

It displays the record of patient whose result has been entered, validated by the medical officer and ready to print. Data is fetched from the result validation table.

By default screen is displayed with the current date's records of validated results. However user has an option to view previous date's records or can filter the data as per the given criteria.

The grid displays the filtered records. On click on print button after selection of the desired record, result is printed to the printer.



Search: Based on from date, To date and any other criteria given, grid displays the record. It displays data whose result is entered and validated.

GRID: User can select the particular record to print the result. System displays the patient details (Service No., Patient Name, Relation, Rank, Name, Age, Gender, Modality, Investigation Name and P (Patient) Type). All fields are Read only.

Radio Button: User can select radio button to select the row to print investigation result.

From Date: It is a selectable field. Default date should be Current server date. User can select previous date. It cannot have a null value.





To Date: It is a selectable field. Default date should be Current server date. User can select previous date. It cannot have null value.

Service No.: It is an enterable field. User can enter the Service no. if required to search. It can have a null value.

Requisition By: It is a selectable field. User can select requisition raised by OPD or ward to search, as required. It can have a null value.

Name: It is an enterable field. User can enter the Service Personnel name, if required to search. It can have null a value.

Patient Name: It is an enterable field. User can enter the Patient name, if required to search. If service no. entered then the patient name is displayed in combo box based on the service no. entered, where user can select patient name as required. It can have a null value.

Modality: It is a selectable field. User can select modality to search, if required. It can have a null value.





Report Delivery Detail

Capture the Report delivery which is result verified.

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Dept/Ward: 3000	Laboratory VISHAL VISHAL		TestDate:	23/03/2	012	ServiceNo.:	
Patient Name: Air Cmde			Relation:	Self 38 Years/Male		Rank:	
Name:			Age/Gender:			Prescribed By:	
Clinical Notes:	For Medical Board		Sub Department :	HAEMA	TOLOGY		
1) Test: TLC							
Sr No.	Service	Result	UOM		Normal Range		Remarks
a)	TLC	4500	/cumm		4000 - 11000		-
			End	l Of The Repor	rt ————————————————————————————————————	N T Manikantan Gp Capt	N T Manikantan Gp Capt
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			IAF	MED.	NET		





Reports

- Diagnostic Register Report
 Diagnostic Summary Report
 Blood Donor Panel



