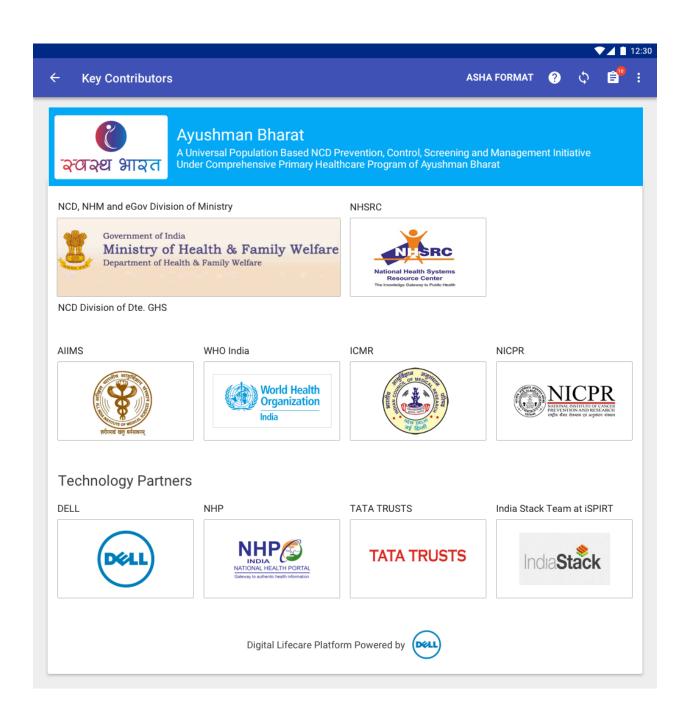


# **CPHC NCD Solution**

# PHC Medical Officer User Manual



# PHC Medical Officer User Manual

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# Primary Health Centre-Medical Officer User Manual

#### Introduction

Under the Ayushman Bharat programme, central government announced in the 2018 budget to establish Health and Wellness Centers which are envisioned as the mechanism for providing comprehensive primary healthcare including services for maternal child health, communicable and non-communicable diseases to the entire population. To begin with few sub-centres, would be upgraded to Health and Wellness Centers, wherein qualified and trained staff nurses and ANMs would screen for non-communicable diseases and refer to the medical officer at the Primary Health Care.

Government of India, Ministry of Health and Family Welfare under the Ayushman Bharat Comprehensive Primary Healthcare (CPHC) program is undertaking a population-based NCD (non-communicable diseases) program. The program aims to screen all men and women over 30 for non-communicable diseases including hypertension, diabetes, oral, breast and cervical cancers with referrals to secondary and tertiary level Government hospitals for diagnosis, treatment and management.

Digital Lifecare is a mobile cloud analytics platform and solutions developed by Dell that bring Health workers, Doctors and Government officials onto a single integrated platform. Since 2014, several deployments of comprehensive primary healthcare and NCD solutions have been done in Karnataka, Andhra Pradesh and Telangana. The Digital Lifecare Platform is being extended to a Comprehensive Primary Healthcare platform that will enable integration of other health programs through APIs.

For the MoHFW-GOI NCD program, the mobile, web apps and dashboards will adhere to the Government of India, NPCDCS guidelines including the Operational Guidelines and Training Manuals for NCD screening and management with inbuilt protocols from Expert Committee members on diagnosis, treatment and referrals at the primary, secondary and tertiary levels.

This medical officer user manual details the workflows, workplans, protocols and dashboards for the GOI NCD technology solution.

#### Role of ASHAs

ASHAs will play a crucial supportive role in undertaking the population enumeration of all those aged 30 years and above through home visits. She will register or list all eligible adults (women and men) fill in details specific to non-communicable diseases and it will be updated every 6 months. She will be given a specific register to record this information, such as:

- 1. Estimating population to be screened
- 2. Enumerating adults 30 years and above in routine household visits
- 3. Filling up family/household folder

Following which she will also record information manually by:

- 1. Completing community based assessment checklist
- 2. Creating individual health cards
- 3. Maintaining village register/ family folder
- 4. Assessing risk and mobilizing priority screening individuals
- 5. Identifying population with risk or no risk factors

#### Role of ANMs

All the information collected by the ASHA must be entered by you later in the tablet. As this would enable proper follow up by the medical officer at the PHC level or at a higher level of facility.

Your task is also to support the ASHA through the field visits in completing the enumeration. Note, you will cross verify at least 10% population and also you will undertake enumeration in some areas where ASHA's position is vacant. You will also ensure all ASHAs complete the CBAC of all individuals 30 years and above and also make available with registration and CBAC forms, measuring tapes, and other tools that may be necessary for the ASHAs to conduct screening.

## Role of Medical officers

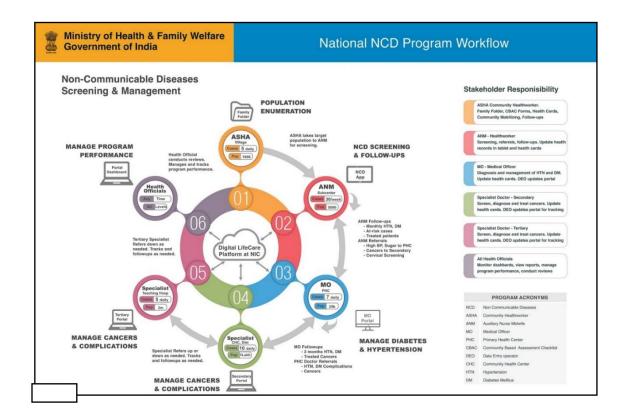
Identifying individuals who have NCDs is difficult since these are "silent" diseases with few or no symptoms in the early stages. For all the 5 NCDs screening & managing them early, results in better health outcomes, survival rates, and less financial impact on individuals. Hence, you will need to encourage and monitor your ASHAs and ANMs to conduct population-based screening program and use the technology more effectively.

It is important you conduct risk assessment, screening, referral, diagnosis and treatment for relevant diseases in the portal. Alongside also do regular follow-ups with patients to ensure strict drug adherence, comply with lifestyle changes and understand the importance of having the NCD controlled. This technology solution will allow you to track every last individual on a regular basis, catch those who have dropped out early and take action to bring them back, and escalate lost patient cases quickly. This is made possible through comprehensive workplans and dashboards.

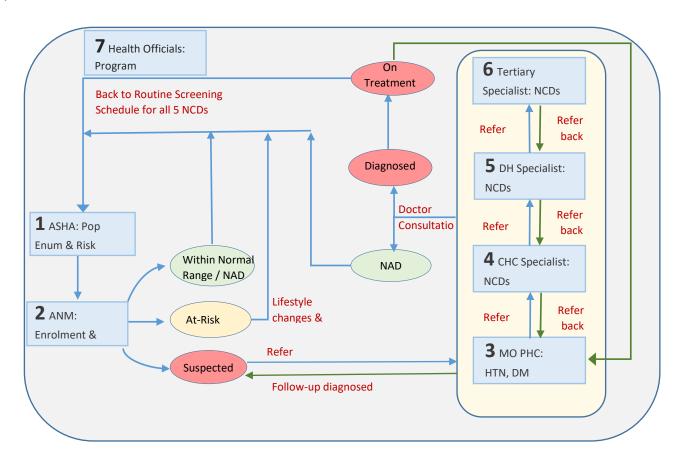
- 1. As Medical officer at PHC, you will provide technical support for all the Staff
  Nurse/pharmacist/counsellors/lab technician/ANM/ASHA on maintenance of records and reports on
  tablets and portal for interventions such as screening, treatment, counselling, referral and follow up and
  timely submission to higher level
- 2. Raise awareness on risk factors of NCDs, healthy lifestyle, benefits of screening and social protection schemes and other treatment options that would cover the costs of care, through platforms
- 3. Map of the public health facilities which are equipped for confirmation and management of complications of NCDs/Cancers nearest to his PHC/CHC for appropriate and timely referral of the patient diagnosed with complications of NCDs/cancers.
- 4. Ensure timely follow up. Note, first follow up at three months is recommended for all, or sooner for patients with concerns/complications.
- 5. Consider annual referral to specialist for HT/diabetes

6. Ensure proper inventory management of the health facility to prevent stock out and provision for one three months' supply of drugs for each patient diagnosed with DM and HT, as and when the medical officer portal prompts you.

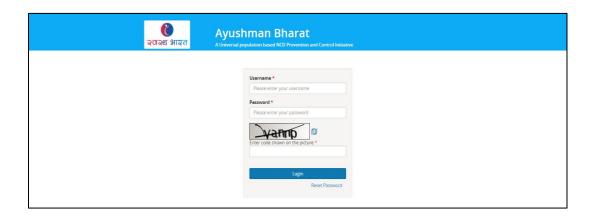
# NCD Workflow and Management:



# Steps to Follow:



# Medical Officer (MO) Portal Login



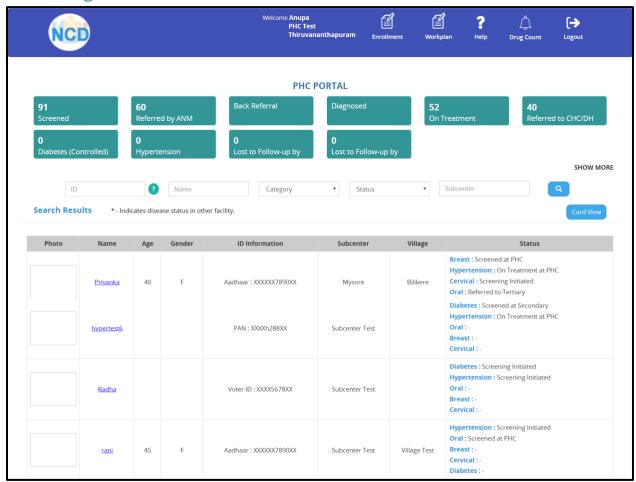
#### Steps to logging in to MO portal:

- 1. To open the portal use the chrome browser.
- 2. The screen above will be displayed.
- 3. Mention the assigned username and the password.
- 4. After entering username and password, name of the doctor field will appear. Enter your name.
- 5. Enter the five digit code shown in the picture. You can also change the image by clicking on the refresh button next to it. [This image keeps changing for every login]
- 6. After filling the details, you must click the login button.

#### Reset Password

- 1. If you forget the password, you have the option to reset new password by clicking on the 'Reset Password' option at the bottom of the page.
- 2. Enter your username, mobile number, choose a new password and confirm the new password by retyping it again.

## Home Page Screen



#### Top Bar

- 1. NCD Logo: On the top left hand corner we will always find the NCD logo, on clicking it directs you to home page.
- 2. Enrolment: On choosing Enrolment, you can create and enroll a new patient.
- 3. Workplan: Workplan is a way for the Medical Officer to know what action you must take. It is similar to a reminder and sorted by different parameters.
- 4. HELP: request for Help, for the particular screen- On selecting, HELP icon you will find support to
  - a. Application Help: will support you to obtain information on how to use the portal and fill the appropriate forms.
  - b. Guidelines: On selecting the guidelines for conducting any screening, you will prompted to NCD guidelines.
  - c. Health Education: You will have access to various health education materials.

- 5. Drug Count: Supports you in knowing the status of essential drugs that is available.
- 6. Logout: Click to logout from the portal.

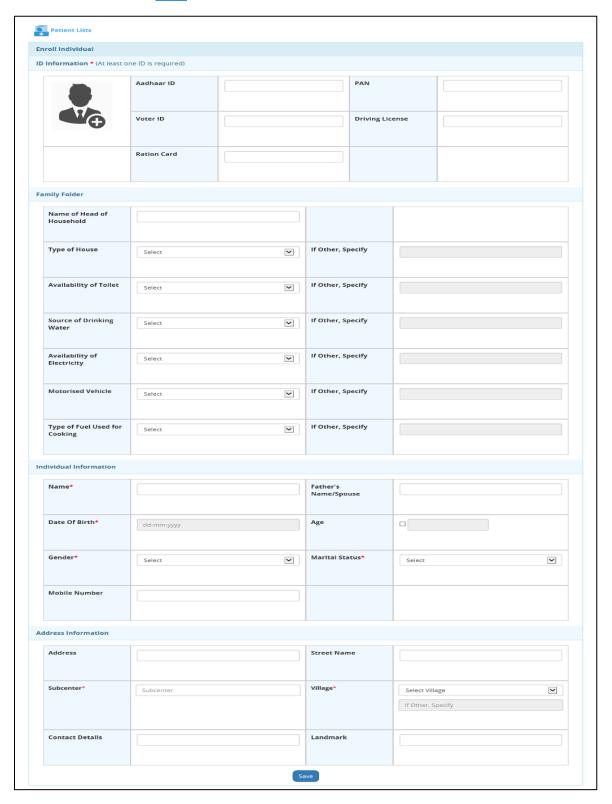
#### PHC Portal Dashboard

After login on portal the home page screen you will observe a Dashboard with the total number of patients who are:

- 1. Screened- See the total number of patients screened against each disease
- 2. Referred by ANM- See the total number of patients referred by ANM for each disease
- 3. Back Referral See the referred back cases by CHC/DH
- 4. Diagnosed See the total number of patients diagnosed against each disease
- 5. On Treatment see the total number of patients on treatment
- 6. Referred to CHC/DH- See the total number of patients referred to CHC/DH by MO
- 7. Screened for Diabetes (Controlled)
- 8. Screened for Hypertension (Controlled)
- 9. Lost to follow-up by ANM10. Lost to follow-up by MO

# Patient Enrolment:





During enrolment, first step is to create a Family Folder, and then add members.

If an individual comes for enrolment, and a family member has previously enrolled, ANM can search for the enrolled member by ID, Name and/or village then add the individual as member into the same family folder.

Enrolment is split in 4 main sections:

- 1. ID information
- 2. Family folder
- 3. Individual Information
- 4. Address Information

If the patient is not registered earlier, the MO can directly register the patient.

Click the Enrollment icon screenshot.



in the home page. This will navigate to the screen shown in the above

**Note:** It is mandatory to complete all the fields with \* next to that field otherwise the enrollment will not be successful.

#### ID Information:

In the ID information section, either the Aadhaar ID, Voter ID, Ration Card, PAN, or the Driving License ID of the patient has to be filled.

**Note:** It is mandatory to fill at least one of the ID in the ID information section.

## Family Folder section:

Family folders are a health card for a family. It has socio-demographic information about the household, the family structure, and an information card for each individual in the family with a health profile.

A family is defined as those using 1 chula in the house.

- 1. In the Name of Head of Household field, enter the name of the head of the family.
- 2. Select the **Type of house** from the dropdown. If you select the **Other** option from the dropdown, then enter the appropriate value in the **If Other, Specify** field
- Similarly, select the Availability of Toilet, Source of Drinking Water, Availability of Electricity,
   Motorized Vehicle, and the Type of Fuel Used for Cooking from the dropdown. If you select the Other
   option from the dropdown, then enter the appropriate value in the If Other, Specify field.

#### Individual Information:

Every individual enrolled in the system has a unique health ID generated by the system. This ID is linked to other IDs that the individual already has, including Aadhaar, Voter ID, PAN card, Driver's License or any other State or National ID.

- 1. Fill in the name and the name of the father or the spouse in the Name and Father's Name/Spouse fields respectively.
- 2. While clicking on Date of birth, a calendar window will pop up; DOB has to be fed in as told by individual.

- 3. If individual does not remember DOB, in that case, Age box has to be clicked. The age as quoted by individual has to be fed in.
- 4. Gender is a dropdown option with three select options, which are Male, Female and Other. Note you can select any one option.
- 5. The Marital status has to be selected from the dropdown
- 6. Enter the phone number of the person to be contacted in the **Mobile Number** field.

#### Address Information:

- 1. Enter the address of the individual in the **Address Information** field. Also enter the street name. Then enter the landmark near the individual's address in the **Landmark** field.
- 2. Also, enter the sub-centre profile name.
- 3. Select the appropriate village of the individual from the **Village** dropdown. If you select the **Other** option from the dropdown, then enter the appropriate value in the **If Other, Specify** field.
- 4. Also, enter the phone number of the person to be contacted in the **Contact Details** field.
- 5. After filling in all details, click on **SAVE** button.

## Search Individual

Every individual record has a link to the family folder of his family.

There is no search by family ID, you can search by ID such as Aadhaar, PAN, Voter license of any individual in the family, and from there she can go to the Family Folder.

1. Below the Dashboard you can find the patient search option, which will have search boxes comprising of ID, Name, Category, Status and Sub-centre.



- 2. Search Allows you to search for Patients using various fields.
- 3. Search by ID You can Search a Patient by entering his ID used for Enrolment or already updated in Portal.
- 4. Click on conto know the list of ID's accepted for Search. (Acceptable ID's— Aadhaar Number, PAN Card number, Voter ID Number, License, Ration Card)
- 5. Search by Name –Enter the Patients Name and Search for Patient.
- 6. Search by Category Search by Disease name. This Gives list of all Patients who have been screened for the searched disease.
  - a) Hypertension
  - b) Diabetes
  - c) Oral Cancer
  - d) Breast Cancer
  - e) Cervical Cancer
- 7. Search by Status Search for patients by status of screening.
  - a) Screened
  - b) Confirmed
  - c) Under Treatment
  - d) Referred
  - e) All Patient in Secondary
  - f) All Patient in Tertiary
  - g) Completed
- 8. Search by Sub-centre Name Search for all the Patients under Specific Sub Center.

  Also you can use combinations of Search field to search the list of Patient's based in need.
- 9. After filling your search Parameters, Press on Search Icon
- 10. Search Result will be displayed under "Search Results" section.
- 11. Search Results can be viewed in List View or Card View.

12. By default List view is displayed. You can switch to Card View by Clicking on Card View on the Right Top corner of the Search Results. You can switch back to List View by clicking on icon.



#### Search Results in List View

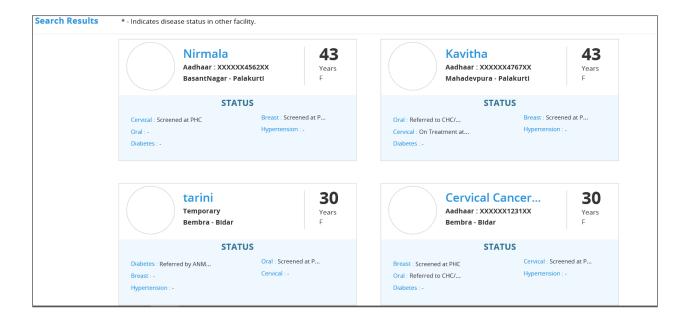
Search Results * - Indicates disease status in other facility.							
Photo	Name	Age	Gender	ID Information	Subcenter	VIIIage	Status
	End to End	30	F	: Temporary	Udupi	Shiroor	Hypertension: Referred by ANM/Doctor Oral: Referred by ANM/Doctor Diabetes: Referred by ANM/Doctor Breast: - Cervical: -
	Diabetes demo two	30	F	: Temporary	SubTesting	Village1_testing	Oral: Referred by ANM/Doctor Dlabetes: Breast:- Cervical:- Hypertension:-
	<u>Radha</u>	35	F	51 : XXXXXXX7888XX	Udupi	Shiroor	Diabetes: Referred by ANM/Doctor Oral:- Breast:- Cervical:- Hypertension:-
	<u>Oral nine</u>	54	F	55 : XXXXP886XX	Udupi	Shiroor	Oral: Referred by ANM/Doctor Breast:- Cervical:- Hypertension:- Diabetes:-

#### **Search Results**

In the Search Results section, you can see list of patient displayed

- 1. In List view has below details are displayed in a tabular format as in screen above –
- a. Photo
- b. Name
- c. Age
- d. Gender
- e. ID Information
- f. Sub-Centre
- g. Village
- 2. Status Shows the screening status of below diseases
- a. Hypertension
- b. Diabetes
- c. Oral Cancer
- d. Breast Cancer
- e. Cervical Cancer
- 13. MO can click on the patient name to open their profile for further options.

#### Search Result in Card View



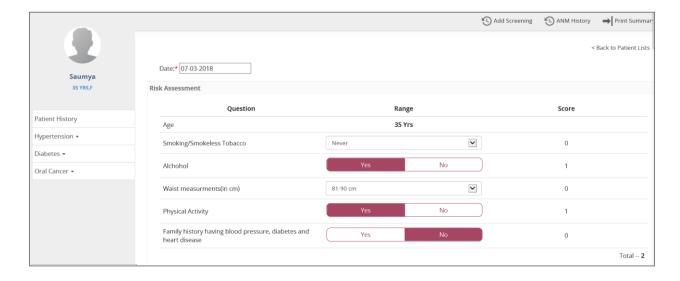
View the search result in card view as shown in screen below. The details are same as List View. Click on the patient name to open their profile for further options.

# **Patient History**

At the higher facility, the specialist doctor is notified that the patient has come through the NCD program. The doctor (or DEO supporting the doctor) will search for the patient record by ID or name. The doctor goes through the examination, laboratory tests and investigations, diagnosis, treatment and referral. The software, based on the GOI NCD protocol will guide him through each of these steps suggesting the best course of action as well as alternatives. After the patient is diagnosed and initiated on treatment, there is a well-defined protocol to be followed to review the effectiveness of the treatment, and the doctor is prompted on this.

This web based portal allows the you to monitor PHC performance through the dashboard, allows you to enroll, screen individuals, diagnose, treat and manage hypertensive and diabetic patients. You can refer patients to secondary or tertiary level.

- 1. On clicking on the Hyperlink on Patient Name in the Search Result, you will be routed to Patient Home Page.
- 2. In Patients Home Page you will see Patient History and the Diseases for which the Screening has already been done for the Patient.



- 1. Click on Patient History
- 2. Click on date, date in calendar will pop up. Select the date.

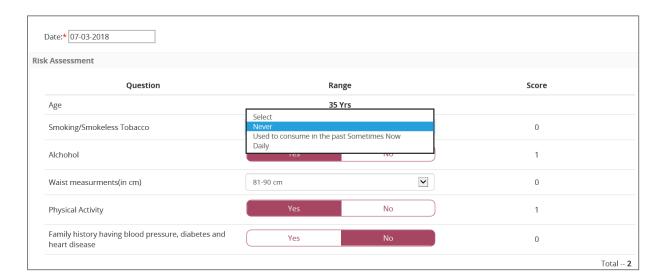
#### Patient History has 5 Sections which will be prepopulated from ANM

- 1. Risk Assessment
- 2. Early detection
- 3. Menstrual History, if the patient's sex is female
- 4. Personal History
- 5. Personal Examination

If the patient is directly enrolled in the PHC, then you will have to fill all the sections under Patient History.

#### Risk Assessment

- 1. Enter the Date of capturing the patient history in Date field. Date is a mandatory field.
- 2. Ask the 5 Risk Assessment Questions.
- 3. Age will be prepopulated from the enrollment section
- 4. Select from the dropdown option for Smoking/Smokeless Tobacco.
  - a. Never
  - b. Used to Consume in Past
  - c. Sometimes Now
  - d. Daily
- 5. Alcohol, Physical Activity and Family history having blood pressure, diabetes and heart disease has to be selected between Yes or NO. Score Scores are allocated for each parameter based on the answer under Range. Total score will be reflected on the right hand bottom.



#### **Early Detection**

Select Yes or No for the symptoms specified under Early Detection section as shown in screen below.

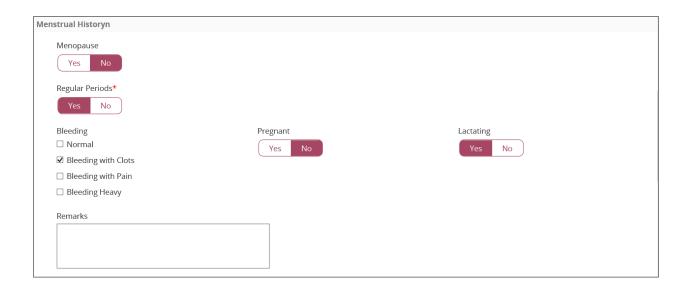


#### Menstrual History

- 1. If you have chosen 'Yes' for Menopause, fill below details as per screen.
  - a. Age at Menarche,
  - b. Last Menstual Period
  - c. Duration Menopause

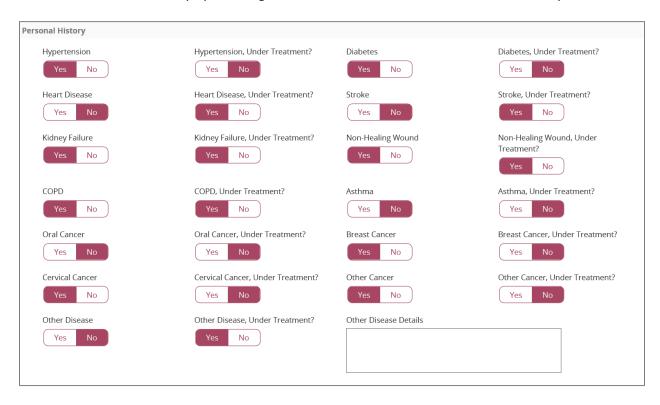


- 1. If Menopause is 'No',
- 2. Fill the details as mentioned in screen below .



#### Personal History

Add Personal Disease History by selecting "Yes" or "NO" for all the fields in Personal History section.

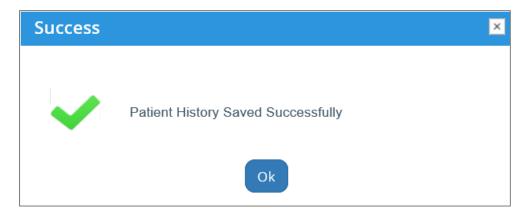


#### Personal Examination

Conduct Personal examination and capture the Height and Weight of the Patient in below section. The Body Mass Index (BMI) is calculated automatically.



Click on save save the Patient History.



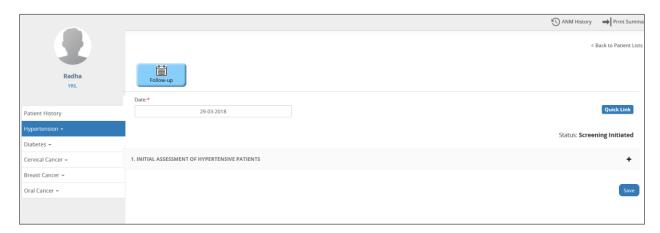
A pop up will show mentioning "Patient History Saved Successfully" Click on OK to save the Patient History.

After successful saving of Patient History, click on Add screening and select the disease for which the screening has to be done. Note, you will to screen for all the five disease for all patients. Breast and Cervical will appear for both female and Other Gender.



After selecting the disease e.g. in this case Hypertension is selected

## Hypertension



Date is mandatory, fill in date.

Click on Quick link to seek help for clinical guideline

Initiate screening after filling first two steps:

- 1. Conduct Initial Assessment of hypertension patients –
- 2. Mention in the medical history if the individual has diabetes Yes or No, likewise, any Pre-existing cardiovascular diseases –previous history of heart attack, previous history of stroke, previous history of other peripheral artery disease, or any family history of premature MI, stroke etc.

  Mention Drug History for the 2 categories
  - a) Taking medicines for any chronic condition for last 3 months, and add medicines if need be
  - b) Any medication taken for diabetes, and add medicines if need be

Check for consuming tobacco

- a) Smoking Yes or No
- b) Smokeless- Yes or No

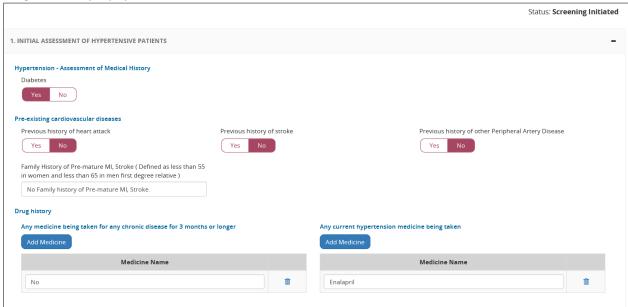
Check for consuming liquor and frequency

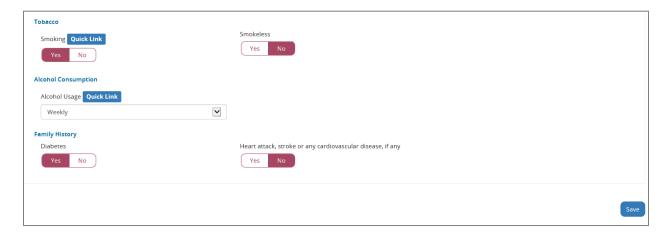
- a) Daily or almost daily
- b) Weekly
- c) Monthly
- d) Less than monthly
- e) Never

Any History in the Family

- a) Hypertension- Yes or No
- b) Heart attack, stroke or any other cardiovascular disease, if any-Yes or No

- 3. After selecting all the options you will click SAVE. On clicking SAVE you will find a pop up to enter Fasting Blood Sugar/ Post Prandial Sugar Readings. Click OK..
- 4. MO then has to capture physical examination section. MO has to check BP systolic/diastolic. Height and weight will be prepopulated from earlier section if entered.





#### The following rules apply for hypertension:

#### Rules for BP Readings

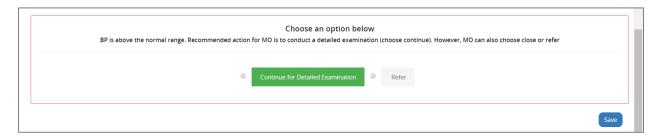
- 1. Diagnosis by MO will not take ANMs BP reading into consideration.
- 2. If BP reading ≥180/110 then MO will refer to CHC/DH after giving medicine.
- 3. In the first BP reading which MO is taking, if reading is more than 160/90 then we can say the patient is hypertensive.
- 4. If systolic reading is in the range of 140 to 159 then MO should go for second reading after 5 minutes.
- 5. If in the first two BP reading, if the difference is less than 10. Then the mean of both readings will be taken into consideration.

- 6. A 3rd BP reading should be taken when difference between first two is > 10/5.
- 7. If 3rd BP readings was done, then the mean of last two (2nd and 3rd reading) will decide the BP reading.

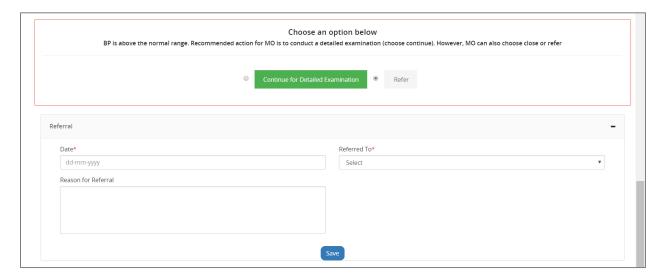
# HTN Management Algorithms

HTN Management Algorithm 1					
Investigation/ Measurement	Criteria	Action			
Special Cases	CAD/Heart Failure/Follow up after stroke/ Diabetes CKD	If Coronary Heart Disease, start on B; If Heart failure, start on A. Refer to CHC/District for further management			
BP Measurement	SBP 140-159 or DBP 90-99 mmHg	Initiate drug treatment with A or C or D with initiation dose.  Review after 4 weeks <sup>1</sup> (first by ANM; if BP is above range, review at PHC. If reading is normal, then review after 3months at PHC)			
BP Measurement	SBP > = 160 mmHg or DBP >= 100 mmHg	Initiate of two drugs from A, C, D with initiation dose Review after 4 weeks <sup>2</sup> (first by ANM; if BP is above range, review at PHC. If reading is normal, then review after 3months at PHC)			
BP Measurement (¹Review after 4 weeks)	If BP >= 140/90	Add another class of drug not used earlier.  - A if on C or D  - C if on A or D  - D if on A or C  Review after 4weeks <sup>2</sup> (first by ANM; if BP is above range, review at PHC. If reading is normal, then review after 3months at PHC)			
	If BP <140/90	Review after 3 months for BP measurement at PHC. Monthly visits to ANM for review			
BP Measurement ( <sup>2</sup> Review after 4 weeks)	If BP >= 140/90	Refer to CHC/DH			
	If BP <140/90	Review after 3 months for BP measurement at PHC. Monthly visits to ANM for review			

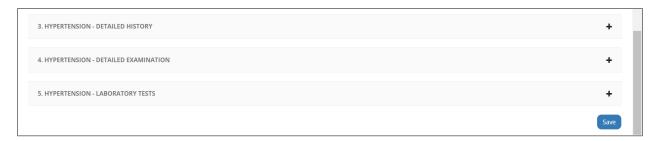
After saving step 2, you will observe the following box asking whether to continue for detailed examination or refer.



If you opt to refer the individual, date of referral, referred to and reason for referral has to be entered and save the details.

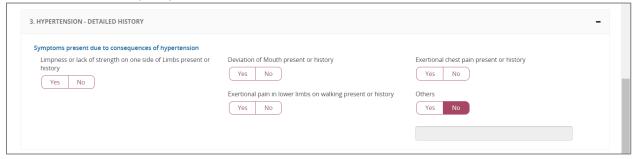


If you opt to continue for treatment then enter step 3 to 5.



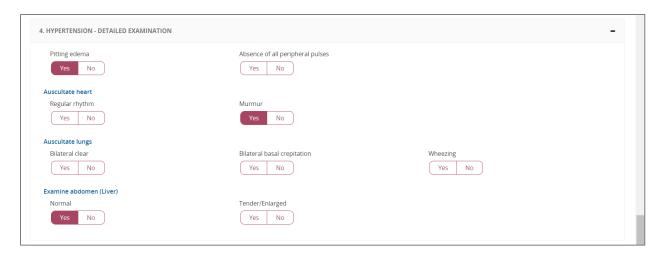
Under detailed history, identify the symptoms present due to consequences of hypertension and save it as Yes or No.

- a) Limpness or Lack of strength on one side of limbs present or history
  - (If Yes, Give medicine and refer for further evaluation at CHC or DH)
- b) Deviation of mouth present or history
  - (If Yes, Give medicine and refer for further evaluation at CHC or DH)
- c) External chest pain present or history
  - (If Yes, Give medicine and refer for further evaluation at CHC or DH)
- d) External pain in lower limbs on walking present or history
  - (If Yes, Give medicine and refer for further evaluation at CHC or DH)
- e) Others, if others specify in the box.

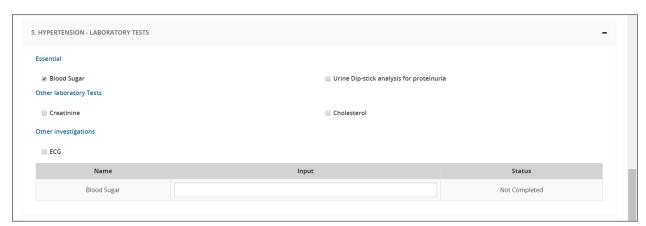


Conduct detailed examination select the responses in Yes or No.

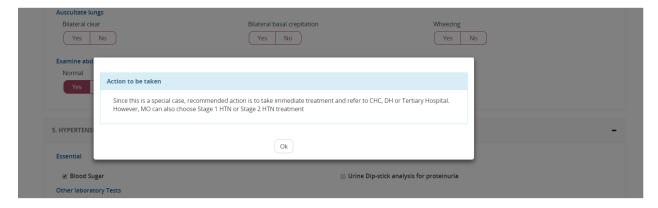
- a) Pitting edema
- b) Absence of all peripheral pulses
  - (If yes, give medicine and refer to CHC or DH)
- c) Auscultate heart Regular rhythm, Murmur
  - Regular rhythm -(If no, give medicine and refer to CHC or DH)
  - Murmur -(If yes, give medicine and refer to CHC or DH)
- d) Auscultate lungs- Bilateral clear, bilater basal crepitation, wheezing
  - Bilateral basal crepitation (If yes, give medicine and refer to CHC or DH)
- e) Examine abdomen (liver)- Normal, Tender/ Enlarged
  - Tender/Enlarged (If yes, give medicine and refer to CHC or DH)



Prescribe for the relevant laboratory test, enter readings and save the details.



After saving the information, based on the protocol action will be suggested to make decision as shown in the image below.

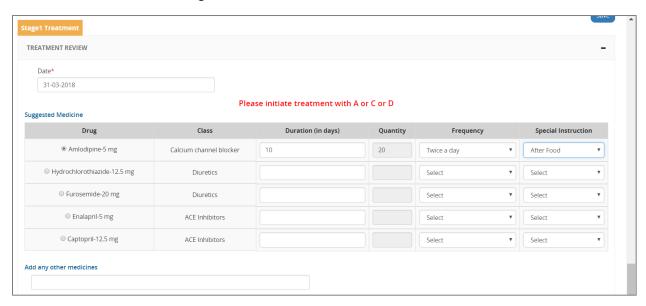


Choose one of the option as shown in the image below and save the details.

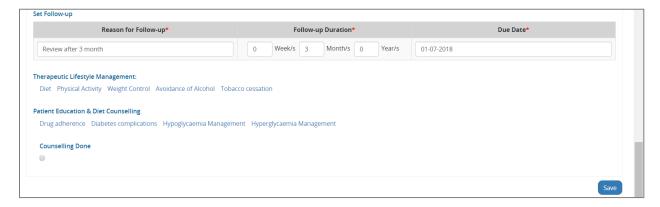


If you select Stage 1, initiate treatment as mentioned in the guideline with A or C or D. Select the relevant drug and enter the duration (in days) and mention the frequency from the dropdown. The quantity will be calculated automatically.

If the medicine mentioned in the guideline is not available in the facility then you can add any other medicines and mention the drug name.



The follow up will be set as per the protocol mentioned in the guideline. Also provide counselling on therapeutic lifestyle management and patient education & diet counselling and tick, when counselling is done.



MO can prescribe for general follow up for patients who needs to be followed up by ANM.

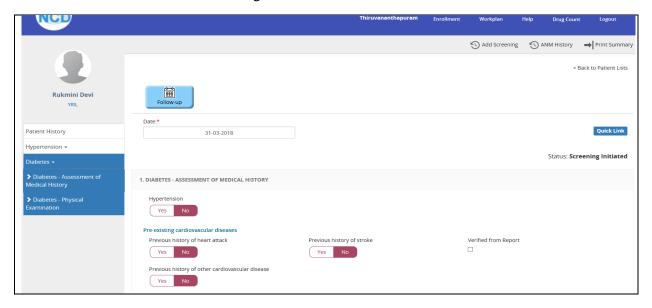


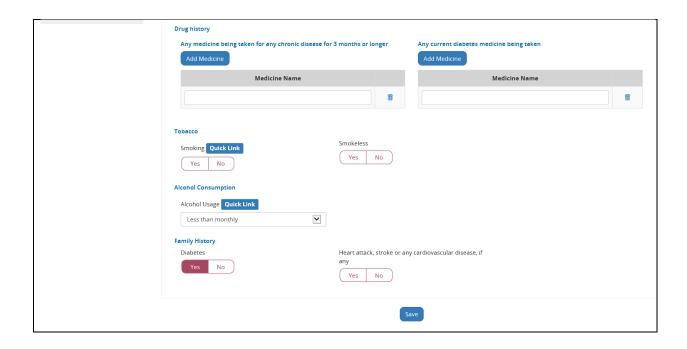


## Diabetes

Date is mandatory, you will need to fill in date.

Click on Quick link to know from clinical guidelines





The ANM screens the individual for all the diseases, including diabetes and refers to the Medical Officer in the PHC and this reflected in the Dashboard and Workplan only in case the patient is enrolled already or found to be at risk.

In case the ANM has not completed the screening for the patient, on the portal you can click to Add Screening and on the left hand side you will find a dropdown menu for diabetes below hypertension.

#### Assessment of Medical History

You should complete the assessment of medical history of the individual i.e.,

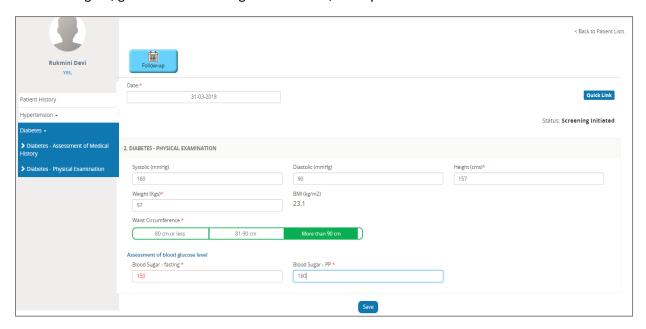
- 1. Ask the person if he is having hypertension Yes or No
- 2. Check for any Pre-existing cardiovascular disease:
  - a) Previous history of Heart Attack
  - b) Previous history of Stroke
  - c) Previous history of cardiovascular disease
  - d) Any tick in the box if you have verified the report
- 3. Mention Drug History for the 2 categories
  - a) Taking medicines for any chronic condition for last 3 months, and add medicines if need be
  - b) Any medication taken for diabetes, and add medicines if need be
- 4. Check for consuming tobacco
  - a) Smoking Yes or No
  - b) Smokeless- Yes or No
- 5. Check for consuming liquor and frequency
  - a) Daily or almost daily
  - b) Weekly
  - c) Monthly
  - d) Less than monthly
  - e) Never

- 6. Any History in the Family
  - a) Diabetes-Yes or No
- 7. Heart attack, stroke or any other cardiovascular disease, if any-Yes or No

After selecting all the options you will click SAVE. On clicking SAVE you will find a pop up to enter Fasting Blood Sugar/ Post Prandial Sugar Readings. Click OK.



After clicking Ok, go to the second stage for Diabetes, i.e Physical Examination.



- 1. Enter readings for- Systolic, Diastolic, Height, Weight, BMI (auto populated), select appropriate waist circumference
- 2. Assess of blood glucose level and enter readings for (any of the blood sugar level is mandatory)
  - a) Blood sugar- fasting
  - b) Blood sugar- PP
- 3. Enter SAVE.

On entering SAVE, a pop up comes, mentioning the **Action to be taken** "FBS/PP is above the normal range. Recommended action is to conduct a detailed examination (choose continue). However, you can also choose refer."



Following which you click OK.

You are directed to two options-

- 1. To do a detailed examination yourself, or
- 2. Refer the patient to higher facility

# Choose an option below FBS / PP is above the normal range. Recommended action is to conduct a detailed examination (Choose continue). However, MO can also choose refer Continue for Detailed Examination Refer

## Note the Diabetes Management:

Diabetes Management Algorithm - 2					
Investigation	Criteria	Action			
	Fasting Blood Sugar (FBS) < 126 mg/dl &/or PPBG <= 200 mg/dl (capillary/venous)	Repeat after 1 year & lifestyle advice			
Blood sugar	FBS >= 126 mg/dl (C/V) OR 2 Hour: Post meal >200 (V)/ > 220 (C) OR 2 Hour: After 75 gm glucose > 200 (V) * C= Capillary; V= Venous	Diagnosis confirmed. Follow Diabetes Initial Management			

In case you decided to do a detailed examination by choosing the Green Button and clicking Ok

You will observe 3 more sections will be visible on the left hand side.

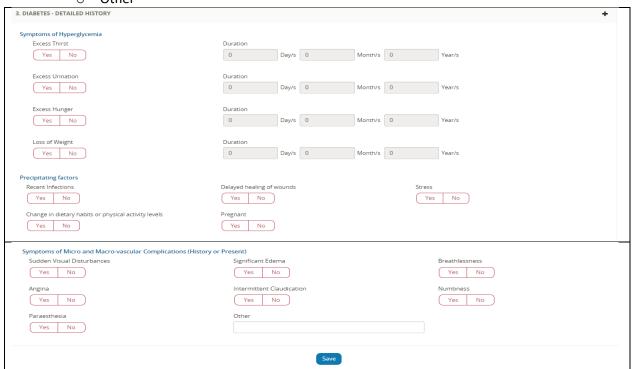
- 1. Diabetes Detailed History
- 2. Diabetes Detailed Examination
- 3. Diabetes Other Laboratory Tests

#### Detailed History-

## 1. Symptoms of Hyperglycemia

- o Excess Thirst
- Excess Urination
- o Excess Hunger
- o Loss of Weight

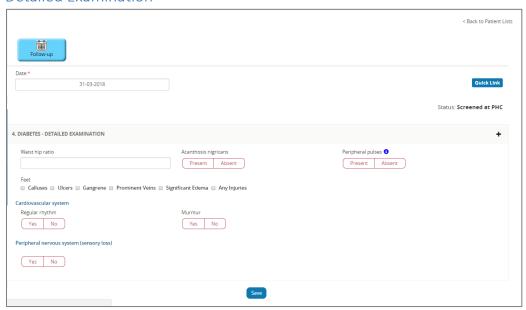
- 2. Precipitating factors
  - Recent Infections
  - Delayed healing of wounds
  - Stress
  - Change in dietary habits or physical activity levels
  - o Pregnant (If Yes, Give medicine and refer for further evaluation at CHC or DH)
- 3. Symptoms of Micro and Macro vascular complication (History or Present)
  - Sudden Visual Disturbances history or present
     (If Yes, Give medicine and refer for further evaluation at CHC or DH)
  - Significant Edema
    - (If Yes, Give medicine and refer for further evaluation at CHC or DH)
  - Breathlessness
  - o Angina
    - (If Yes, Give medicine and refer for further evaluation at CHC or DH)
  - Intermittent Claudication
     (If Yes, Give medicine and refer for further evaluation at CHC or DH)
  - o Numbness
  - o Paraesthesia
  - Other



**Enter SAVE** 

After completion of taking the Detailed History and Clicking Save

#### **Detailed Examination**



Enter details for Detailed Examination-

- 1. Enter the Date and
- 2. Choose the options applicable.
- 3. On clicking any of the option here and Clicking Save
- 4. You are again given two additional dropdowns, i.e.,
  - a) Treatment Review
  - b) Treatment History

#### Lab Tests:

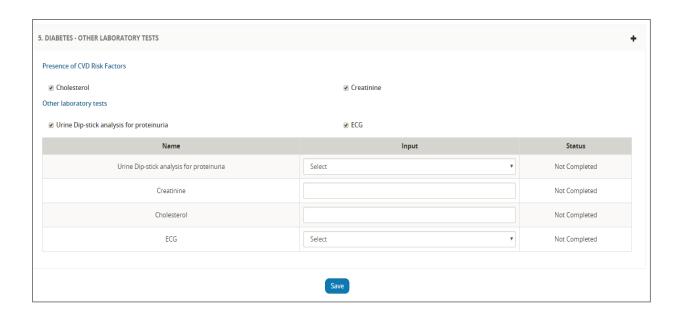
After clicking SAVE, Click on Other Lab Tests

Record Other LAB Tests such as -

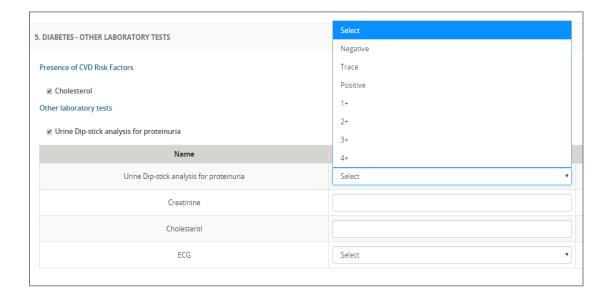
- 1. Presence of CVD Risk factors- Cholesterol and Creatinine
- 2. Other Lab tests- Urine Dip stick analysis for proteinuria and ECG

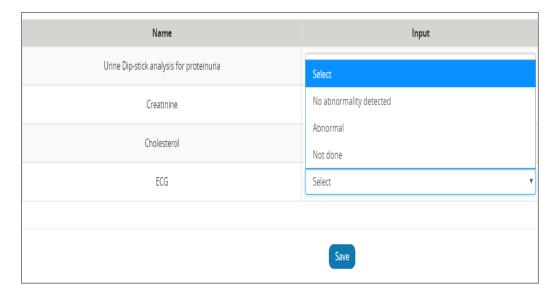
On click the check box, you will be able to upload the readings in the input and press save.

Note, you will find drop down options for Urine Dip Stick Analysis for proteinuria and ECG, as shown below.



Note, you will find drop down options for Urine Dip Stick Analysis for proteinuria and ECG, as shown below.



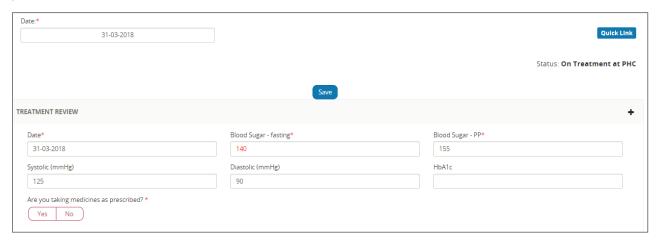


#### Treatment Review:

- 1. After completion of entering the reading for Other Lab tests, you must enter treatment review.
- 2. Enter Date of conducting the treatment review

On pressing treatment review you will need to enter Date, Blood Sugar readings, Blood Pressure Readings and HbA1c. However note, it is mandatory to fill the first three.

Should the reading for the patient be higher than 140, a question is seen- Are you taking medicines as prescribed?- Yes or No



## Diabetes Pharmacotherapy:

Diabetes Management Algorithm – 3			
Investigation/ Measurement Criteria Action			
Diabetes diagnosis	If yes	Start with metformin 500mg, 2 tablets Review after 1 month <sup>1</sup>	

BS	If not controlled	Increase dose to 1000 mg, twice a day Review after 1 month <sup>2</sup>	
BS	If not controlled	Start glibenclamide 2.5 mg, once a day	
BS	If not controlled	Refer to CHC. Popup- Insulin is never started at PHC but if patient is already taking it, it is continued	

Suggest Medicine, if diagnosed with diabetes- Metformin 500 mg, 1000 mg depending on the blood sugar level and enter duration in days, select the frequency from the dropdown and enter special instructions like before/after food.

You can also add any other medicine, if need be.

By default, a follow up review is set after 3 months, however you are allowed to change the follow up duration if need be and the due date is set automatically.

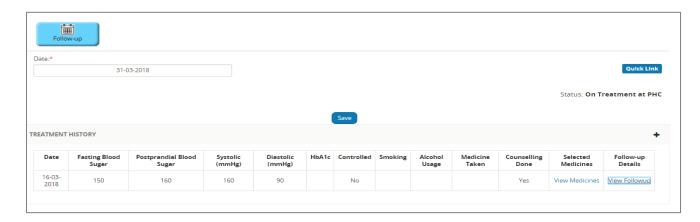
Tick on Completion of counseling for-

- 1. Therapeutic Lifestyle Management
- 2. Patient Education and Diet Counseling

#### Treatment History:

On clicking the treatment history, you read the all the essential details at glimpse.

Date, Fasting Blood Sugar, Postprandial Blood Sugar, Systolic, Diastolic HbA1c, Controlled, Smoking, Alcohol usage, Medicine Taken, Counseling done, Selected Medicines, Follow up Details



On clicking view medicines- you can view whatever the individual is treated for.



On clicking follow up details- you will be able to view the next follow up date.



# **Oral Cancer**

Oral Cancer Examination-

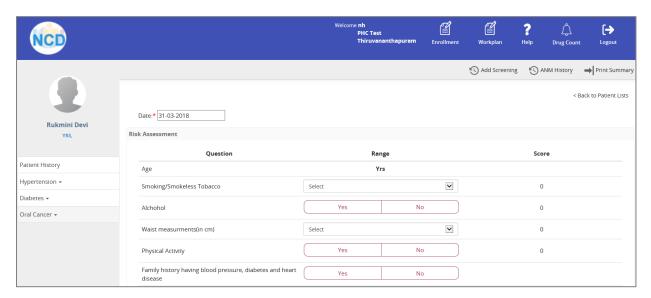
On completion of screening for Hypertension and Diabetes, initiate and screen for Oral screening.

## Go to ADD SCREENING and Select ORAL SCREENING



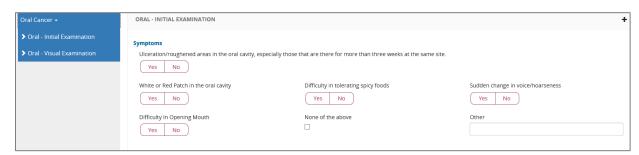
You will observe a POP up as observed above.

#### Click OK.



You will observe, a new dropdown is added called Oral Cancer.

#### Click on Oral Cancer.



On clicking Oral Cancer, you will observe two more sub points-

- 1. Initial Examination
- 2. Visual Examination

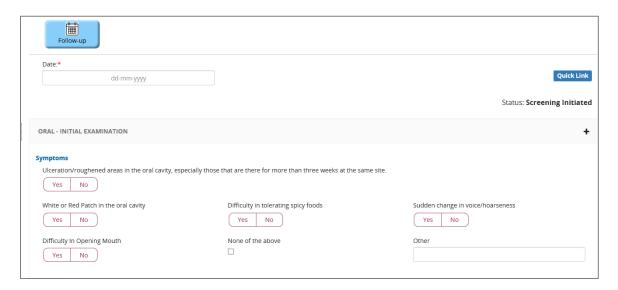
#### Initial Examination:

Initiate Examination for symptoms by clicking on Initial Examination.

You should Select the Date of Examination, observed on top left and

On the right hand you will find a quick link, to guide you through the steps in screening process as mentioned in the guideline

Below the status is also mentioned – e.g.: screening initiated



On selection of date, start initial examination and check for symptoms

- 1. Ulceration/ roughened areas in the oral cavity, especially those that are there for more than three weeks at the same time
- 2. White or Red patch in the oral cavity
- 3. Difficulty in tolerating spicy foods
- 4. Sudden change in voice/ hoarseness
- 5. Difficulty in opening mouth
- 6. Else, tick none of the above

If observed something other than whatever options provided, please mentioned under others.



### Visual Examination:

- 1. On completion Initial Examination, proceed to do the Visual Examination and
- 2. Select from the option provided- Yes or No
  - a) Leukoplakia
  - b) Erythoplakia
  - c) Submucous fibrosis
  - d) Smoker's palate
  - e) Lichen Planus
  - f) Ulcer
  - g) Growth Locked Jaw
  - h) None of the above

#### Click SAVE.

In case leukoplakia, erythroplakia, Submucous fibrosis, smoker's palate is selected by MO has to suggest the flow as mentioned in the table below:

Oral Cancer Management Algorithm 1				
Investigation	Criteria	Action		
	Potentially Malignant Lesions (Any of these : leukoplakia, erythroplakia, Submucous fibrosis, smoker's palate)	Elimination of Etiological factors like- Tobacco Cessation and alcohol deaddiction Observe for 6 weeks <sup>1</sup>		
Oral Visual Examination	Regression (¹review after 6 weeks)	Medical Management Reinforced counselling Follow up and monitoring at PHC, after 4 weeks. MO can change this frequency.		
	No Change/Progression	Refer to CHC/DH for biopsy		
	Suspected Oral Cancer	Refer to CHC/DH/Tertiary care (MO chooses) (Detailed Intraoral Examination and biopsy (if required) Histo-pathological reporting.		

	Intervention will be decided based on the
	presence of dysplasia.)

## **Breast Cancer**

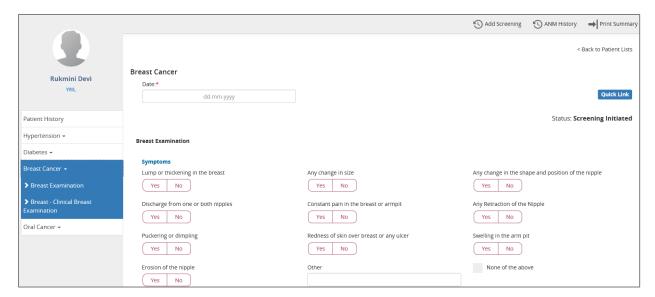
Proceed to Examination for Breast Cancer

Go to ADD SCREENING and Select Breast SCREENING



You will observe a POP up as observed above.

#### Click OK.



You will observe, a new dropdown is added called Breast Cancer.

Click on Breast Cancer.

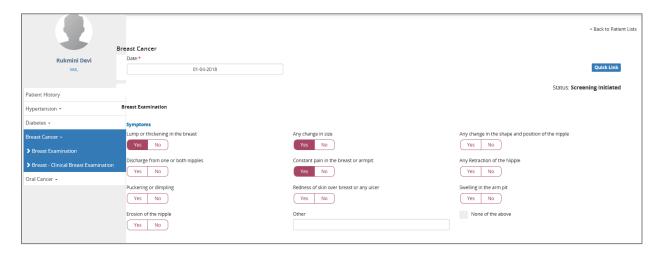
On clicking Breast Cancer, you will observe two more sub points-

- 1. Breast Examination
- 2. Clinical Breast Examination

### **Breast Examination:**

Initiate Examination by clicking on Breast Examination You should Select the Date of Examination, observed on top left and On the right hand you will find a quick link, to guide you through the steps in screening process as mentioned in the guideline

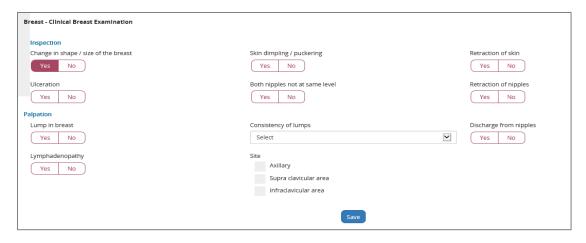
Below the status is also mentioned – e.g.: screening initiated



On selection of date, start initial examination and check for symptoms and mention Yes or No suitably for-

- 1. Lump or Thickening in the breast
- 2. Any change in size
- 3. Any change in the shape and position of the nipple
- 4. Discharge from one or both nipples
- 5. Constant pain in the breast or armpit
- 6. Any retraction of the nipple
- 7. Puckering or dimpling
- 8. Redness of skin over breast or any ulcer
- 9. Swelling in the arm pit
- 10. Erosion of the nipple
- 11. If observed something other than whatever options provided, please mentioned under others
- 12. Else, tick none of the above

Clinical Breast Examination



On completion Breast Examination, proceed to do the Clinical Breast Examination and Select from the option provided and mention- Yes or No

- 1. Inspection
  - a. Change in shape/size of the breast
  - b. Skin dimpling/puckering
  - c. Retraction of skin
  - d. Ulceration
  - e. Both nipples not at same level
  - f. Retraction of nipples
- 2. Palpation
  - a. Lump in breast
  - b. Consistency of lumps
  - c. Discharge from nipples
  - d. Lymphadaneopathy
  - e. Size
- Click SAVE.

Medical officer has to follow the action as mentioned in the table below:

Breast CBE Algorithm - 1				
No abnormalities on visual inspection or palpation	Normal/Negative	Go back to primary screening schedule		
Family history of breast/Ovarian/colon cancer		Conduct CBE and refer positive cases to CHC/DH - Evaluation by Surgeon at CHC/DH including ultrasound scan, biopsy/ FNAC		
History of Chronic Benign Breast Diseases	High Risk			
Personal History of Breast Cancer in same Breast or opposite breast				
Discrete hard lump in the breast with or without swelling in the armpit	Abnormal - Probably malignant	Refer to CHC/DH - Evaluation by Surgeon at CHC/DH		

Recent nipple retraction or distortion		including ultrasound scan, biopsy/ FNAC
Skin dimpling or retraction		
Ulceration		
Blood stained nipple discharge		
Other lumps in the breast	Abnormal –	
Non bloody nipple discharge	Probably non- malignant	

# Cervical Cancer

Proceed to Examination for Cervical Cancer

Go to ADD SCREENING and Select Cervical SCREENING

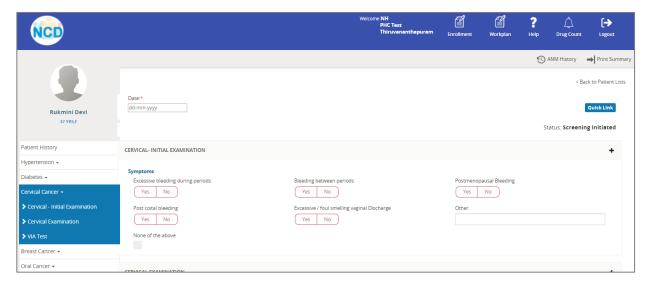


You will observe a POP up as observed above.

Click OK.

### Cervical Examination

You will observe, a new dropdown is added called Cervical Cancer.



Click on Cervical Cancer.

On clicking Cervical Cancer, you will observe two more sub points-

- 1. Initial Examination
- 2. Clinical Cervical Examination

#### Cervical Examination

Initiate Examination by clicking on Cervical Examination You should Select the Date of Examination, observed on top left and

On the right hand you will find a quick link, to guide you through the steps in screening process as mentioned in the guideline

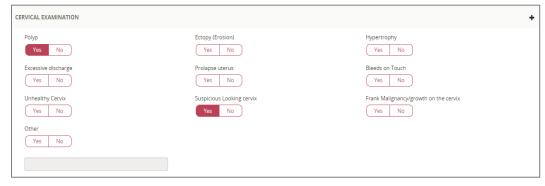
Below the status is also mentioned – e.g.: screening initiated



On selection of date, start initial examination and check for symptoms and mention Yes or No suitably for-

- 1. Excessive bleeding during periods
- 2. Bleeding between periods
- 3. Postmenopausal Bleeding
- 4. Post coital bleeding
- 5. Excessive/foul smelling vaginal Discharge
- 6. If observed something other than whatever options provided, please mentioned under others
- 7. Else, tick none of the above

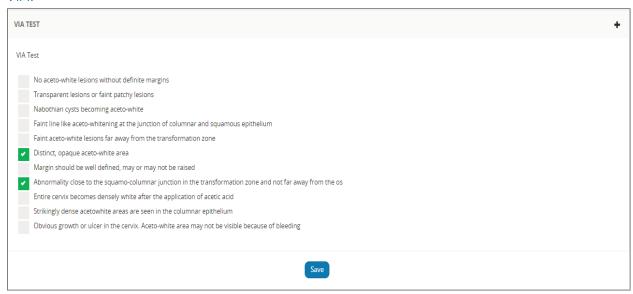
#### **Cervical Examination**



On completion Cervical Examination, proceed to do the Cervical Examination and

- 1. Select from the option provided and mention- Yes or No. If ANM has selected any of the examination, it will be prepopulated in MO portal.
  - a) Polyp(Prepopulated from ANM data)
  - b) Ectopy (Erosion) (Prepopulated from ANM data)
  - c) Hypertrophy(Prepopulated from ANM data)
  - d) Excessive discharge(Prepopulated from ANM data)
  - e) Prolapse uterus(Prepopulated from ANM data)
  - f) Bleeds on Touch(Prepopulated from ANM data)
  - g) Unhealthy Cervix(Prepopulated from ANM data)
  - h) Suspicious Looking cervix(Prepopulated from ANM data)
  - i) Frank Malignancy/growth on the cervix(Prepopulated from ANM data)
- Click SAVE.

#### VIA:



If trained to do VIA, examine and choose from the option above and

Click SAVE.

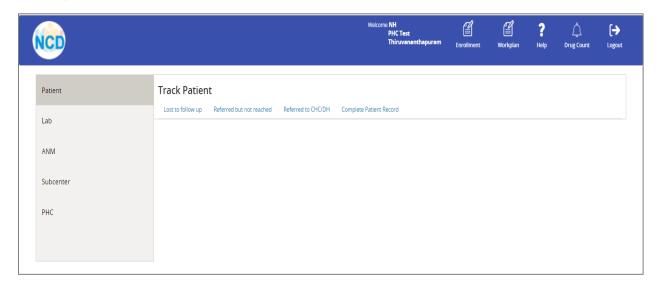
Cervical Cancer Management Algorithm 2			
Investigation	Criteria	Action	
	No aceto-white lesions without definite margins		
	Transparent lesions or faint patchy lesions		
	Nabothian cyst becoming aceto-white	VIA-Negative	
	Faint line like aceto-whitening at the junction of columnar and squamous epithelium		
	Faint aceto-white lesions far away from the transformation zone		
VIA test result	Distinct, opaque aceto-white area		
	Margin should be well defined, may or may not be raised		
	Abnormality close to the squamo-columnar junction in the transformation zone and not far away from the os.	VIA- Positive	
	Entire cervix becomes densely white after the application of acetic acid		
	Strikingly dense aceto-white areas are seen in the columnar epithelium		
	Obvious growth or ulcer in the cervix. Aceto-white area may not be visible because of bleeding	Invasive Cancer	

Medical officer has to follow the action as mentioned in the table below:

Cervical Cancer Management Algorithm 1				
Investigation	Criteria	Action		
VIA	Negative	Repeat VIA after 5 years		
	Positive (Lesions eligible for cryotherapy)	Cryotherapy. If facility not available, refer to CHC/DH		
VIA		Follow up after one year with VIA		
VIA	Positive (Lesions not eligible for cryotherapy)	Refer to CHC/DH for biopsy (naked eye or colposcopy guided)		
	Cancer growth	Refer to TCC		

VIA Screen with options from table below (Algorithm 2). Based on MO selection, popup will show VIA category.

# Workplan:



S. No	Action Point	What does it mean? How it is set? What is the action?	How is it turned off?
1	Enter data of patients who have completed MO visit	Medical Officer must update the health record in the MO Portal for individuals he has seen but hasn't entered into the system. He will get the list based on tracking done by ANM. During ANM's follow-up of individuals who have been "Referred but not reached facility" or "Lost to follow up by MO", if they confirm that they have already seen the MO, she will mark it in her "Patient Tracking" screen as "Already visited attached PHC". MO will then see the list of these individuals in this workplan. He must enter their data into the portal from their paper reports. In a future version, will explore due dates for workplans.	Only after MO completes entering details
2	Track Patient	Medical Officer must consult with ANM and update the Patient Tracking status below for list of patients who fall into these 2 conditions - "Referred but not reached" and "Lost to follow-up by MO" with one of the below options:  Seen by MO, but data not entered (When selected, MO is automatically taken to the disease page to enter data)  Patient has not come  Patient moved (MO can get this info from ANM)  Patient gone to private (MO can get this info from ANM)  Others- if others please specify.	Turned off when 1, 3 or 4 is selected.
3	Update incomplete patient records	MO must update incomplete patient records with essential elements – these include measurements (eg BP, sugar), investigation, diagnosis, drugs prescribed.	When all essential elements have been filled for that patient
4	Track patients referred to CHC or DH	referred to CHC or DH. ed to  A timeline can be set for one month. (Future version)	
5	Enter the findings from lab investigations	MO has prescribed the lab test and the patient has been tested but the result was not entered.  MO will need to update the result/ findings.	Only after MO completes entering details

6	Estimate the drugs requirement.	Based on the drug prescribed for each patient, and the quantity needed, the total requirement for each drug for that month is calculated and displayed. The total demand is calculated by adding a buffer of 10% for new patients.  MO will use this number to place the indent to his Block Health Officer.	Only after MO completes entering details
7	Approval of Subcentre Profile	Medical Officer will need to approve or decline the subcentre profile whenever any changes are made to it.  The ANM will enter details including ANM name, ID, Phone # and Population # and submit for MO approval. ANM may also update the SC profile at any time and submit for MO approval.  MO cannot edit subcenter details; he can only approve or decline it.	Turned off when MO approves the SC profile
8	Complete PHC profile	Medical Officer will enter his/ her own PHC profile details including Doctor Name, ID, Phone #, DEO Name, DEO Phone # and Population# In the PHC profile, there is 1 row for each subcenter, which has the details from the subcenter profile submitted by the ANM. If the ANM has not filled the subcenter profile, the MO will need to fill the population # for that subcenter. This will help in generating the targets for each subcentre. It is mandatory that MO fill the information of population # of the PHC	Turned off when MO completes the PHC profile
9	ANM follow up (These are all items under ANMs workplan, shown in MO's workplan so that the MO can monitor the ANM)	Lost to follow-up by ANM after diagnosis Set when patient has missed follow-ups with ANM for 2 calendar months. MO must remind the ANM and update the status in the 'ANM Notification' screen below  Follow up by ANM of Uncontrolled patients- Set for patients on treatment when their BP or sugar is uncontrolled; required to have monthly follow-up with ANM. MO must remind the ANM and update the status in the 'ANM Notification' screen below  Screening on priority Individual has high CBAC score- prioritize for screening. MO must remind the ANM and update the status in the 'ANM Notification' screen below	Turned off based on ANMs specific actions for each of these.

## **Complete partial screening**

Individual hasn't been screened for all 5 diseases MO must remind the ANM and update the status in the 'ANM Notification' screen below

### Patient Suspected, not referred

(For any disease)

Individual has symptoms and should be referred to MO/Specialist.

MO must remind the ANM and update the status in the 'ANM Notification' screen below

### Patient Referred, not reached facility

(For any disease)

No entry in system that referred individual has seen by specialist.

MO checks with ANM and updates the 'Patient tracking' screen below

#### ANM needs to collect Medicines-

If medicines are prescribed by MO but not collected by ANM, then ANM has no medicines to give.

MO will need to follow-up with ANM, to collect the names and give to the patients.