

PartoCalc User Manual

11.03.2020

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Installation

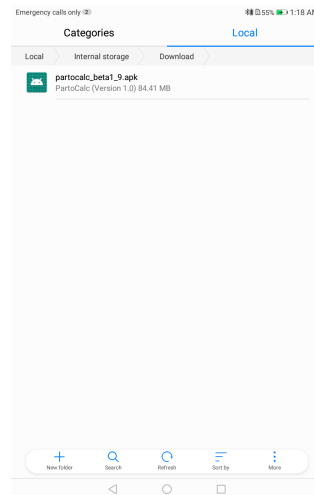


Figure 1: The APK of the PartoCalc Application

1.1 While installing the APK, you will get a message (Figure 2).

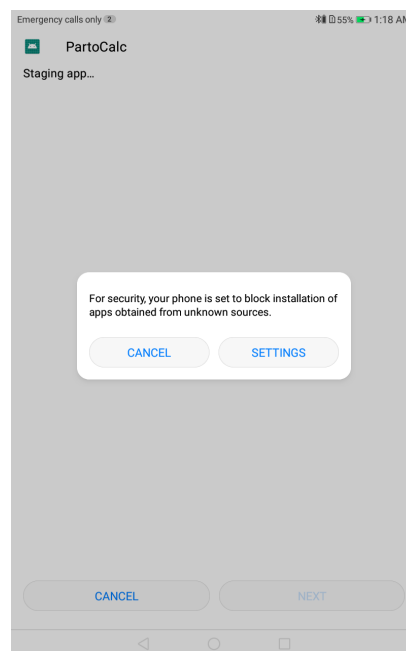


Figure 2

1.2 Tap on the Settings button and you will see a window (Figure 3).

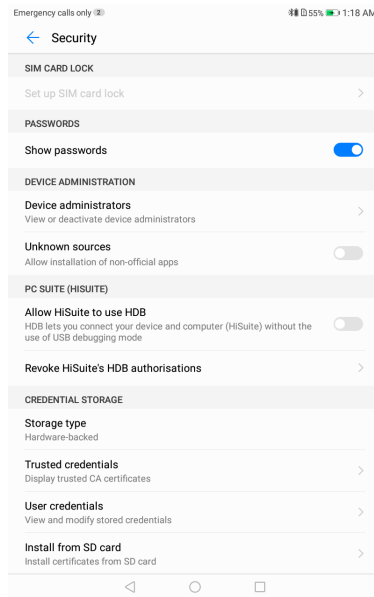


Figure 3

1.3 Turn on the Unknown sources option to allow installation of non-official apps. You will get a warning (Figure 4).

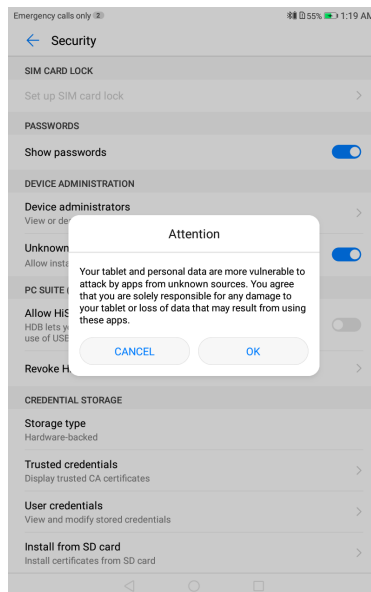


Figure 4

1.4 Tap the OK button and you will see that the Unknown Sources option is now turned on.
(Figure 5)

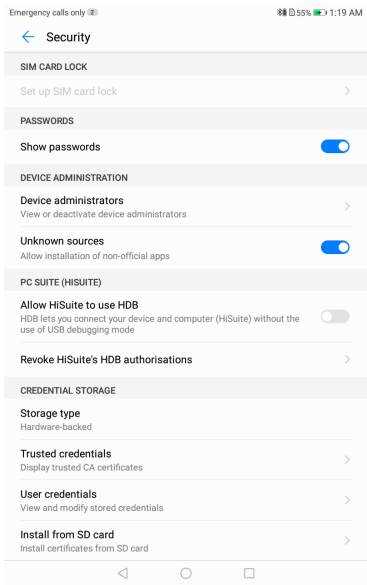


Figure 5

1.5 Now Install the app (Figure 6)

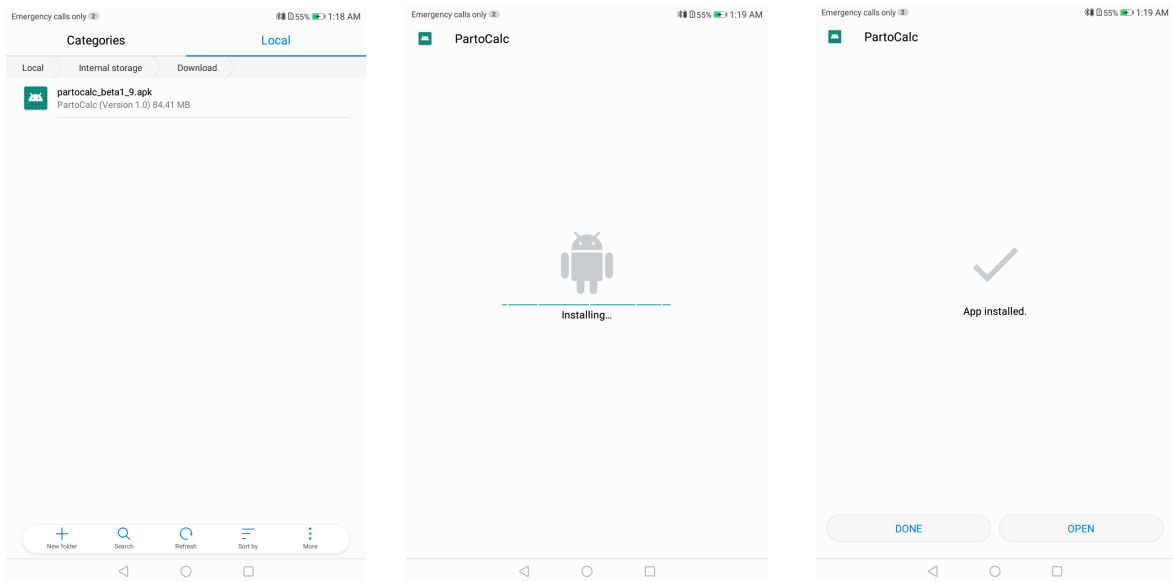


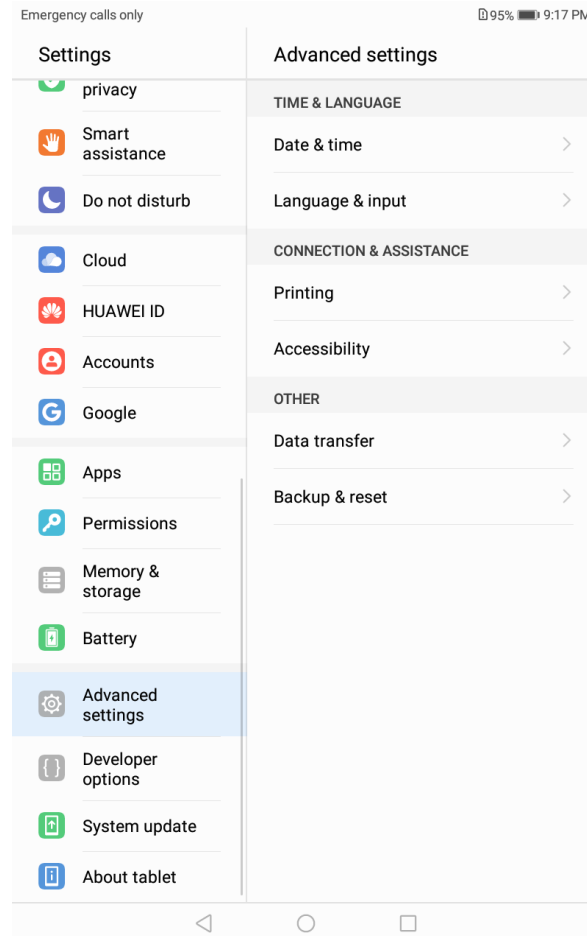
Figure 6

1.6 The app is now installed, and you will see it on your home screen. (Figure 7)

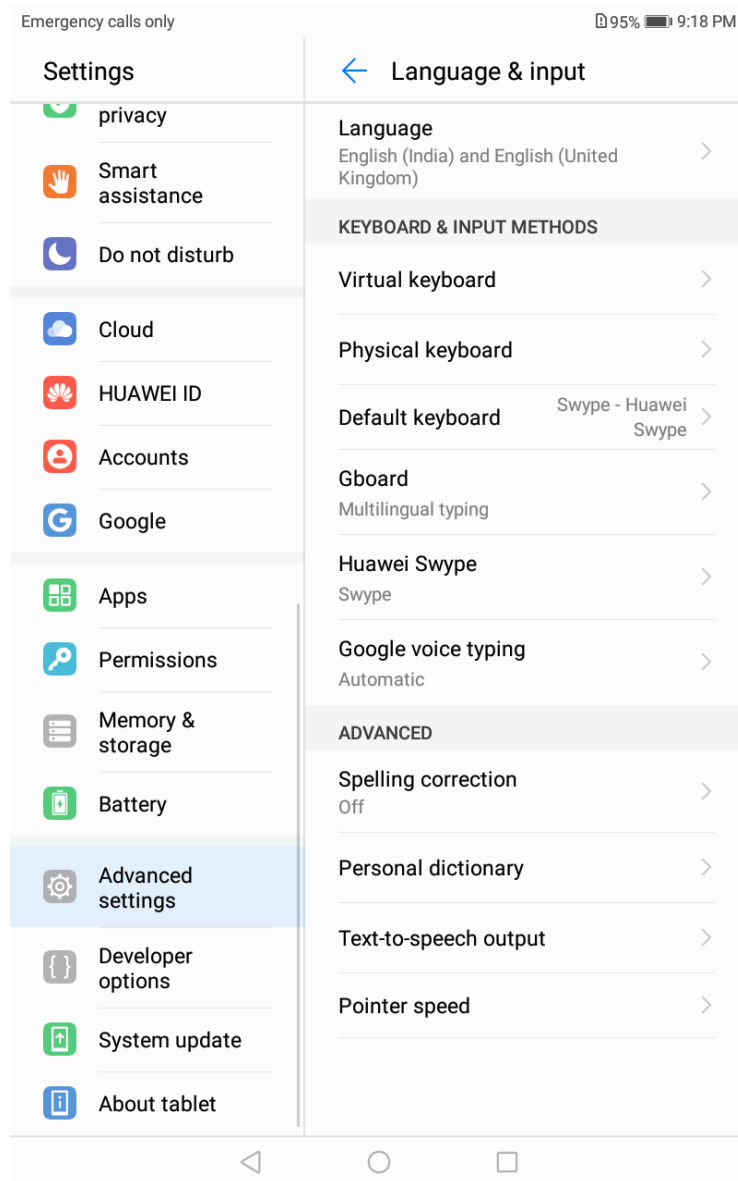


Figure 7

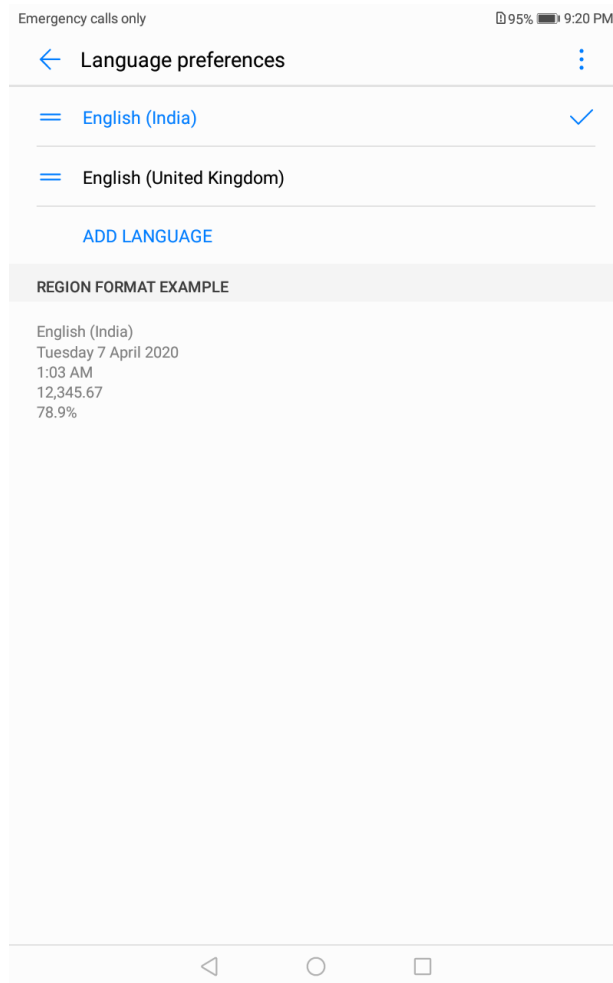
1.7 Change the english language preference according to the region the user is in. (In this example-1 English(India) is being selected.)



Example: 1.1



Example: 1.2



Example: 1.3

Creating Partograph

2.1 Tap on the app to open it. The app will open. Click on the menu icon on the top-left corner to open the side-navigation bar. (Figure 8)

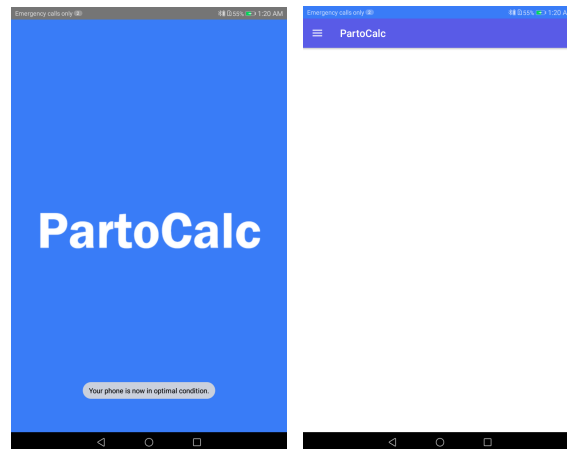


Figure 8

2.2 Tap on the Create Partograph option to start creating a partograph for a new patient. A window will open. (Figure 9)

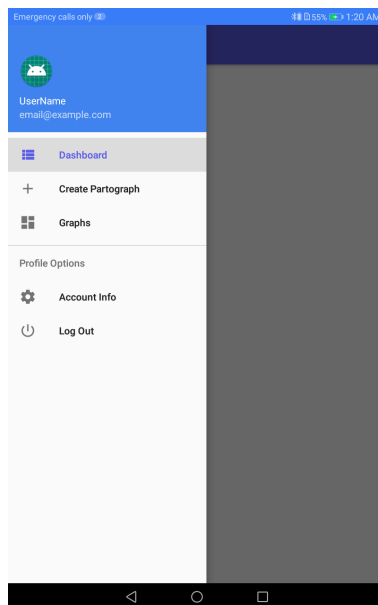


Figure 9

2.3 Fill out the fields manually. Then tap the Create graph for Patients button. (Figure 10)

Emergency calls only 55% 1:20 AM

← Create PatientFile

Patient Name...

Gravida...

Hospital Number...

Para...

Ruptured Membranes...

Hours...

Date of Admission...

Time of Admission

Create Graph for Patient

Figure 10

2.4 Now the new partograph will be created (Figure 11)

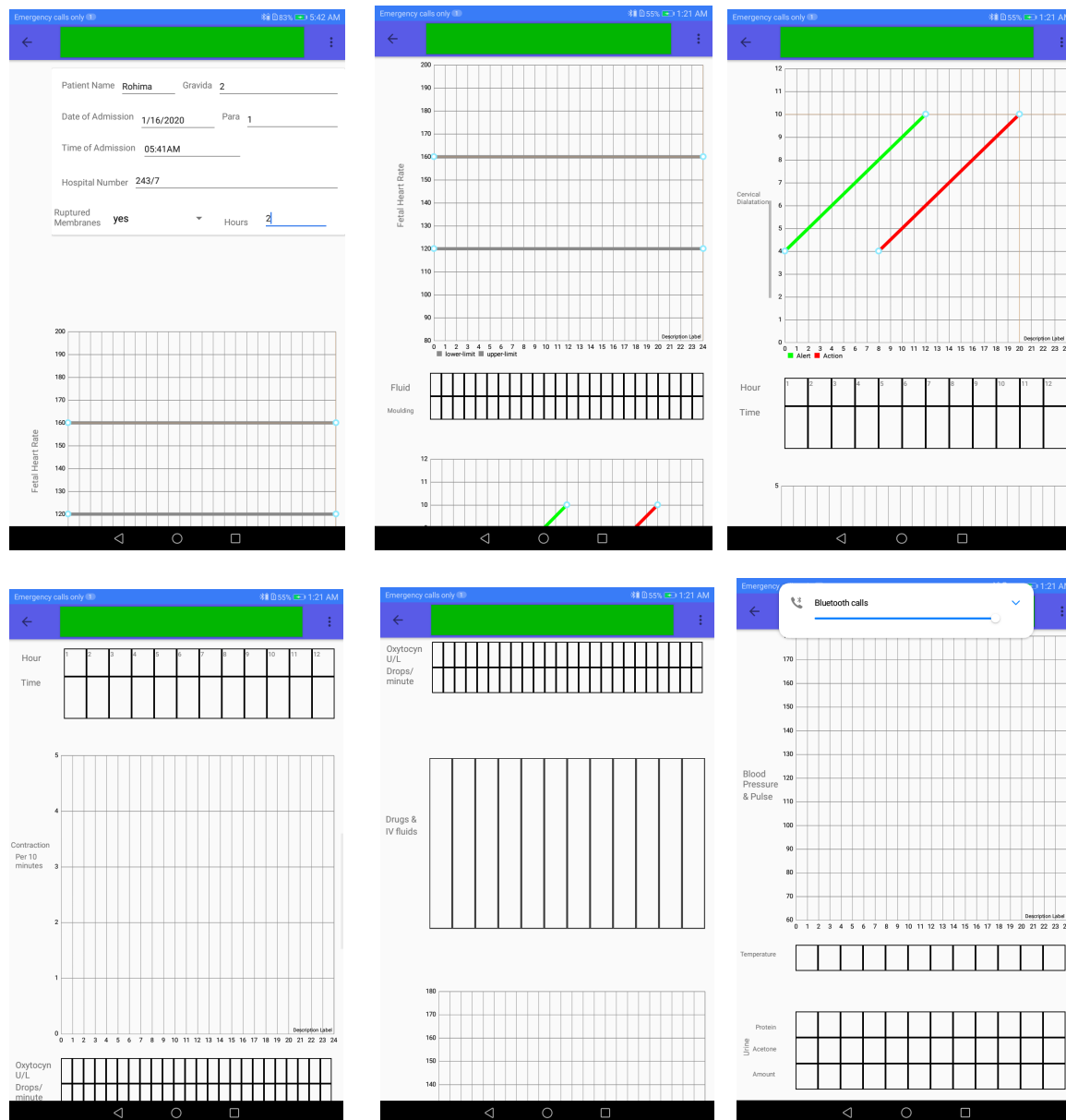


Figure 11

Insertion:

To insert data in the graph, give the corresponding voice commands as given in Table 1. Figure 12-18 shows the states of the partograph after inserting data.

Table 1: Input Fields and the Corresponding Voice Commands

Name of the field	Unit of measurement	Sample input	App Input Command (with sample values))
Fetal Heart Rate	No unit	120	“Computer Fetal 120”
Fluid	No unit	m	“Computer Fluid m”
Moulding	No unit	absent, +, ++,+++	“Computer Moulding 1+”
Cervical Dilatation	Cm	4	“Computer Cervical 6 centimeter”
Descent of head	No unit	1,2,3,4,5	“Computer Descent 3”
Contraction frequency and duration	No. of times contraction, duration in seconds	Frequency 3 times Duration 20 seconds	“Computer Contraction 20 seconds 3 times”
Oxytocin			This field will be filled up manually (through typing)
Drugs and IV Fluids			This field will be filled up manually (through typing)
Pulse	No unit	80	“Computer Maternal 160”
Temperature	Degree Celsius	36	“Computer Temperature 98.4”
Urine protein	Mg/g	30	“Computer Protein 1+”

Urine acetone	Mg/dL	7	“Computer Acetone absent”
Urine Volume	No unit	100	“Computer Urine 100”

To input Fetal Heart Rate, give voice command in the format: ‘*Computer Fetal 145*’ and the value ‘145’ will be plotted in the graph. (Figure 12)

Steps:

1. Say: ‘*Computer*’
(System: *Please name a graph*)
2. Say: ‘*Fetal*’
(System: *Fetal graph selected, Please insert value*)
3. Say: ‘145’
(System: *You have inserted 145*)

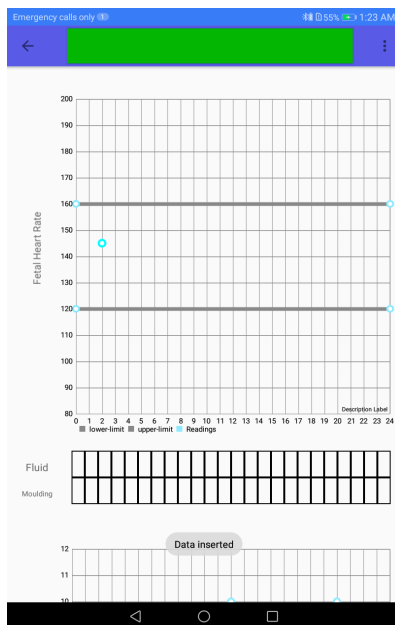


Figure 12

To input Fluid, give voice command in the format: '*Computer Fluid m*' and the value '*m*' will be plotted in the graph. (Figure 13)

Steps:

1. Say: '*Computer*'
(System: *Please name a graph*)
2. Say: '*Fluid*'
(System: *Fluid graph selected, Please insert value*)
3. Say: '*m*'
(System: *You have inserted m*)

To input Cervical Dilatation, give voice command in the format: '*Computer Cervical 5 centimeter*' and the value '*5*' will be plotted in the graph. (Figure 13)

Steps:

1. Say: '*Computer*'
(System: *Please name a graph*)
2. Say: '*Cervical*'
(System: *Cervical graph selected, Please insert value*)
3. Say: '*5 centimeter*'
(System: *You have inserted 5 centimeter*)

When the value of cervical dilatation is 10, the status of the patient will be inactive. The patient will not be viewed in the patient list anymore. But the data will be stored in the database.

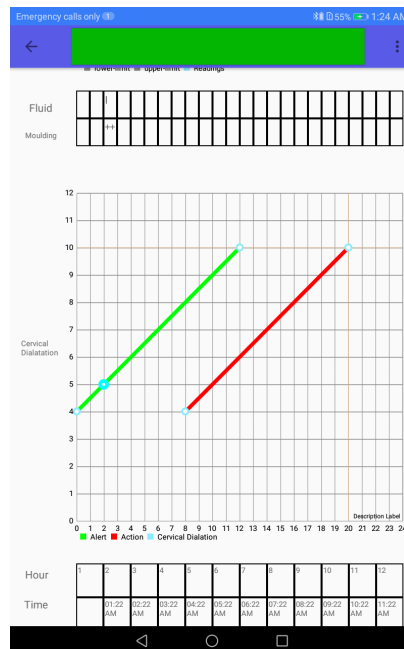


Figure 13

To input Pulse, give voice command in the format : '*Computer Pulse 85*' and the value '85' will be plotted in the graph.

Steps:

1. Say: '*Computer*'
(System: Please name a graph)
2. Say: '*Pulse*'
(System: Pulse graph selected, Please insert value)
3. Say: '*85*'
(System: You have inserted 85)

Similarly, to input Blood Pressure, give a voice command in the format : '*Computer Pressure 110/70*' and the value '*110/70*' will be plotted in the graph. (Figure 14)

Steps:

1. Say: '*Computer*'
(System: Please name a graph)
2. Say: '*Pressure*'
(System: Pressure graph selected, Please insert value)
3. Say: '*110/70*'
(System: You have inserted 110/70)

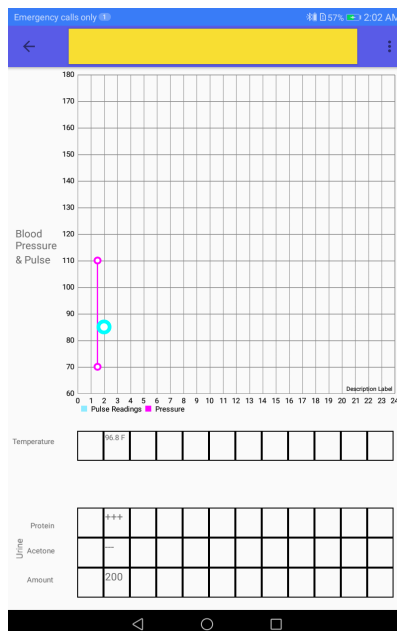


Figure 14

To input Fetal Head Readings, give voice command in the format : ‘*Computer Descent 3*’ and the value ‘3’ will be plotted in the graph. (Figure 15)

Steps:

1. Say: ‘*Computer*’
(System: *Please name a graph*)
2. Say: ‘*Descent*’
(System: *Descent graph selected, Please insert value*)
3. Say: ‘3’
(System: *You have inserted 3*)

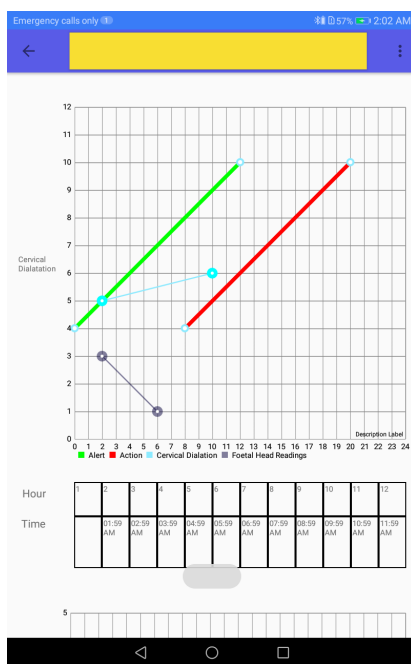


Figure 15

To input Contraction frequency and duration, give voice command in the format : *'Computer Contraction more than 20 seconds 3 times'*. A bar of height 3 and color gray will be generated in the graph (Figure 16).

For contraction duration under 20 seconds, the color of the bar will be light gray , for contraction duration 20-40 seconds, the color of the bar will be gray and for contraction duration more than 40 seconds, the color of the bar will be dark gray.

As we can see in Figure 16, the light gray bar is generated for the voice command *'Computer Contraction Under 20 seconds 4 times'* and the dark gray bar is generated for the voice command *'Computer Contraction more than 40 seconds 2 times'*.

Steps:

1. *Computer*
(System: Please name a graph)
2. *Contraction*
(System: Contraction graph selected, Please insert value)
3. *Under 20 seconds 4 times/ More than 20 seconds 3 times/ More than 40 seconds 5 times*
(System: You have inserted (Under 20 seconds 4 times)/(More than 20 seconds 4 times)/(More than 40 seconds 5 times))

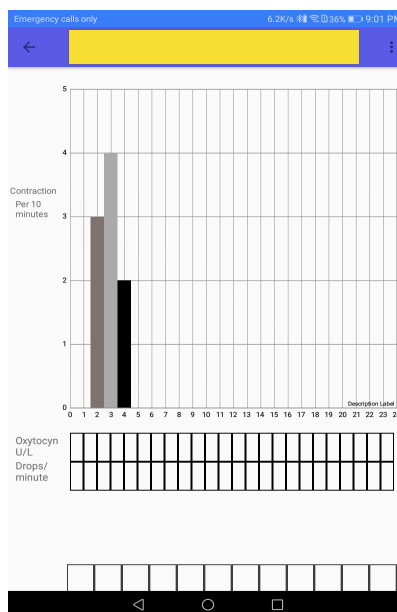


Figure 16



Figure 17

Deletion of an Entry:

To delete a wrong entry, the command *'Computer Remove'* should be given within 1 minute of the entry being plotted. Figure 18 to 20 shows the deletion of a wrong entry. The value of the Fetal Heart rate was entered as *'160'* in the first place. After providing the command *'Computer Remove'*, you will see a prompt asking *'Do you want to delete the previous entry?'* (Figure 18)

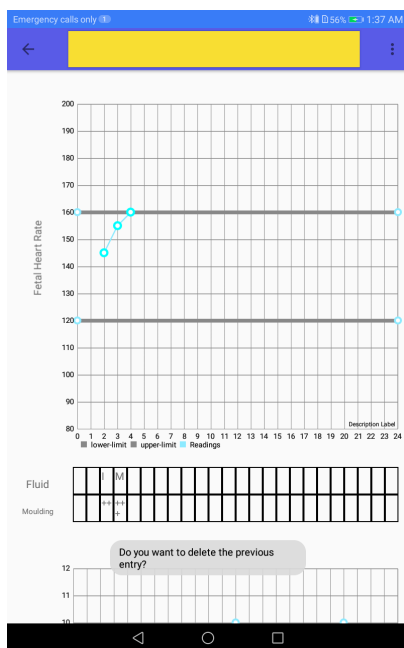


Figure 18

You say *'Yes'* (Figure 19) and the entry is deleted and now you can enter the correct value (Figure 20)

If you say *'No'* after the prompt, the entry will not be deleted.

Steps:

1. Say: *'Computer Remove'*
(System: *Do you want to delete the previous entry?*)
2. Say: *'Yes'/'No'*
3. You say *'Yes'* (Figure 19) and the entry is deleted and now you can enter the correct value (Figure 20). If you say *'No'* after the prompt, the entry will not be deleted.

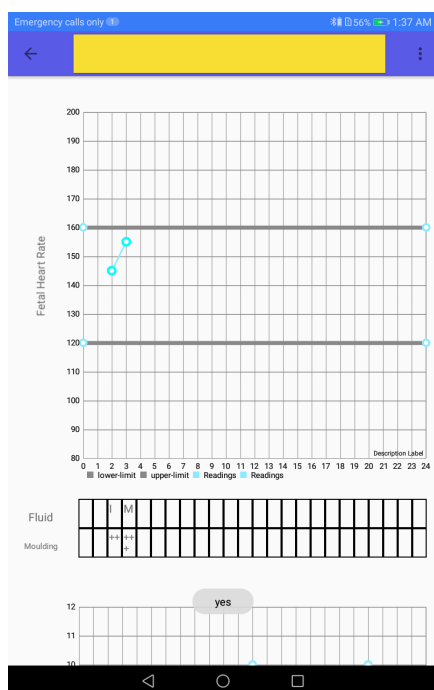


Figure 19

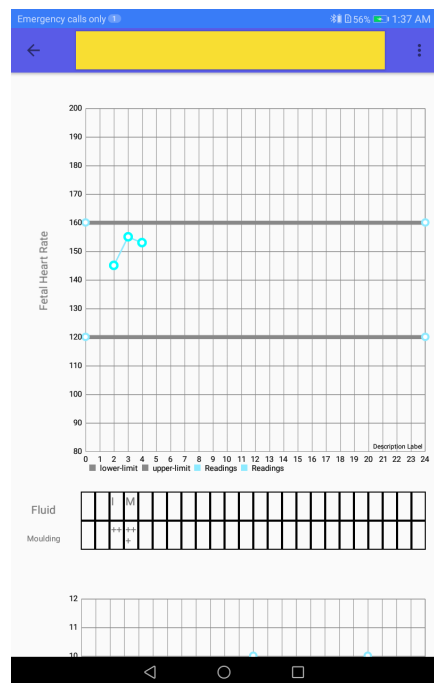


Figure 20

Handling Multiple Patients

Till now, we have learnt how to create a partograph for a single patient. Now we will see how to handle multiple patients. As per the requirements, there will be no more than 5 patients in a room. So the maximum limit of creating patient profiles in a device is 5. We can see a single patient profile in Figure 21. It says a patient named 'hau' is admitted in bed 1.

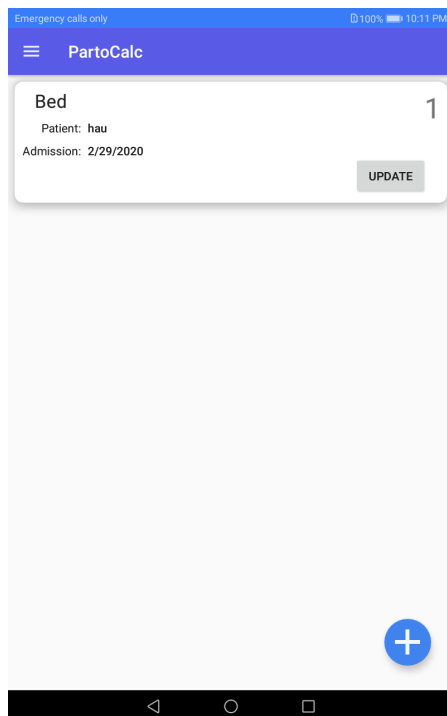


Figure 21

Now to create a new patient, follow the steps:

1. Press the plus (+) button at the bottom-right corner.
2. A prompt will be seen with a selector for selecting the bed number to assign. If you pick an existing bed number which is already assigned to a patient, you will see a toast message showing 'The bed is occupied'. If you pick a bed that is not occupied yet, a new partograph will be created and opened. Bed number 2 is selected in Figure 22.

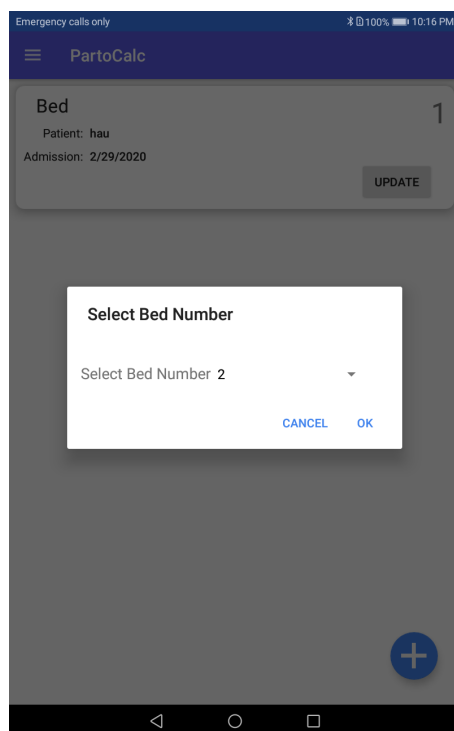


Figure 22

3. *Press OK to go to the next step.*
4. *Now fill out the fields on the top of the partograph. Without filling up those fields, the partograph will not be created.*
5. *After filling up the fields, Select the Save Graphs option. (Figure 23) If the save button is clicked without filling up all necessary information, the partograph will not be saved. If the button EXIT is clicked, the data inserted will not be saved.*

We can exit the partograph in 3 ways:

- a) Clicking the arrow on the top-left corner*
- b) Tapping the Exit button on the top-right dropdown*
- c) Pressing the back button of the mobile phone or tablet*

In all the 3 cases, if the partograph is not saved, you will get a prompt asking if you want to exit without saving the graph.

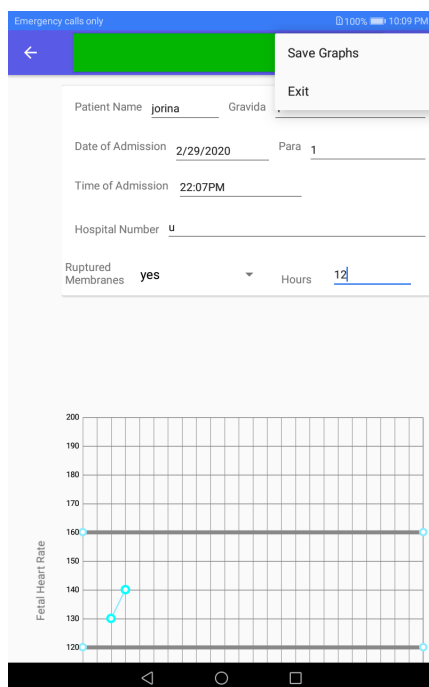


Figure 23

6. Now, if we fill up all the necessary information and press the save button, a new patient will be created and assigned in bed 2 (Figure 24).

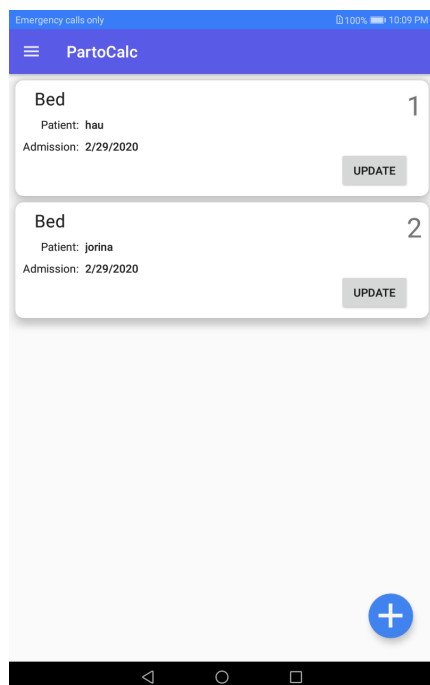


Figure 24

To edit a partograph for any patient, follow the steps:

1. Click the *UPDATE* button on the right corner of the patient list.
2. A prompt will appear asking if you want to edit the partograph.
3. Click *Yes* to edit. (Figure 25)

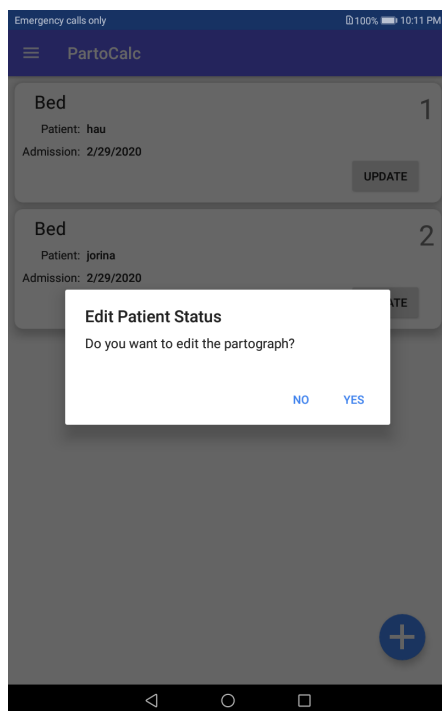


Figure 25

4. Edit the fields you want to change
5. Tap the *Save Graphs* option on the top-left corner of the screen. (Figure 26)

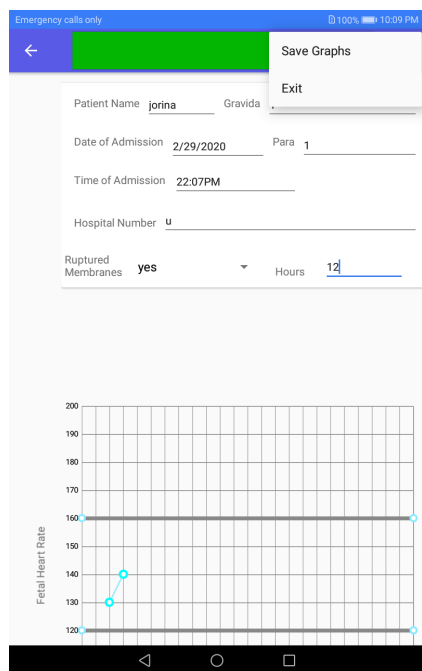


Figure 26

6. You will get a prompt asking if you want to save the changes.
7. Click the Save button. (Figure 27)

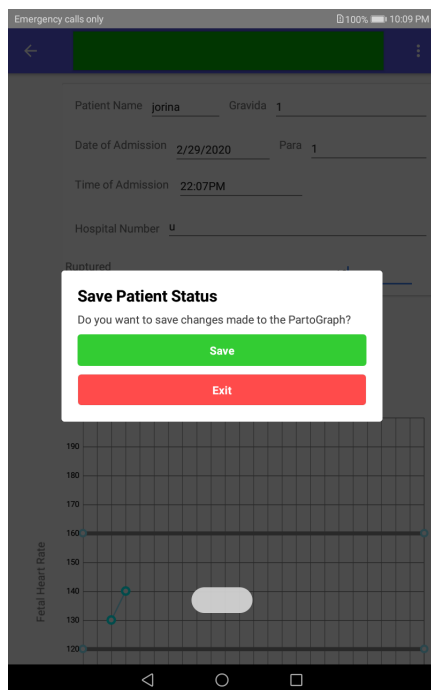


Figure 27

The partograph for Patient 2 is now updated. (Figure 28)

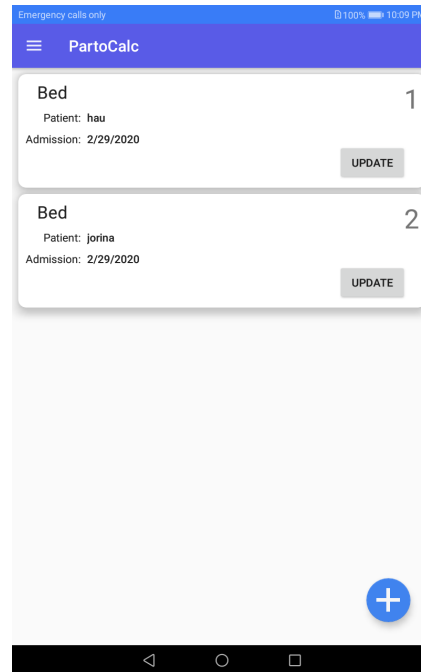


Figure 28

If you want to create a new patient and assign her to an already occupied bed, you will be notified with a toast message that the bed is already occupied.

In Figure 29, bed number 1 is selected. The toast message shows that *Bed number 1 is occupied* (Figure 30). Similarly In Figure 31, bed number 2 is selected. The toast message shows that *Bed number 2 is occupied* (Figure 32).

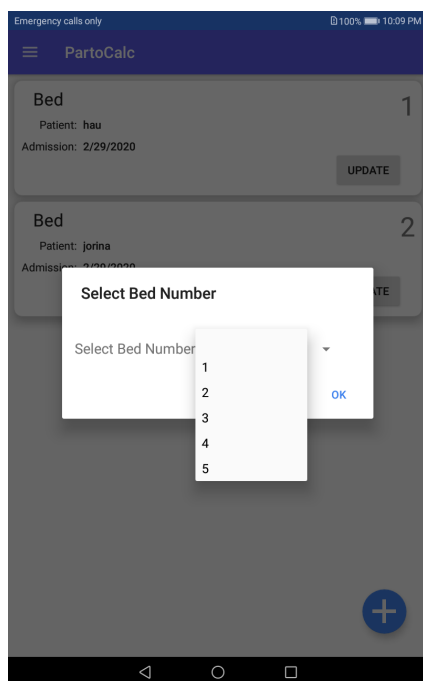


Figure 29

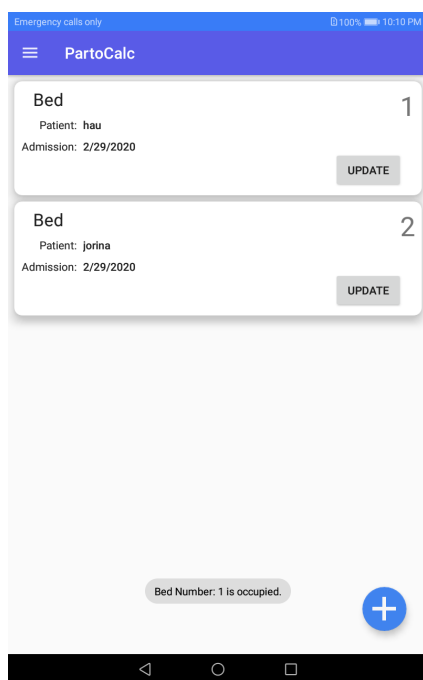


Figure 30

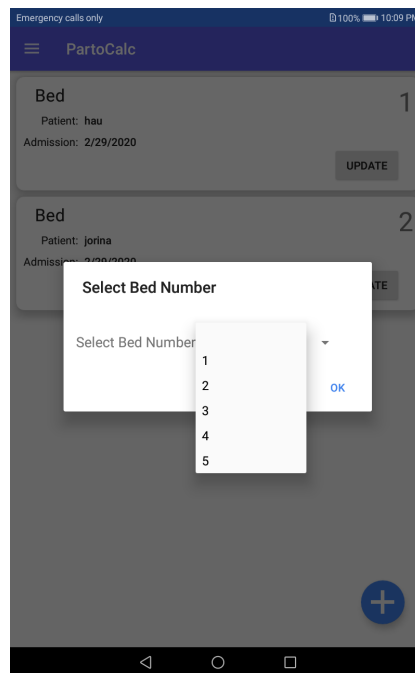


Figure 31

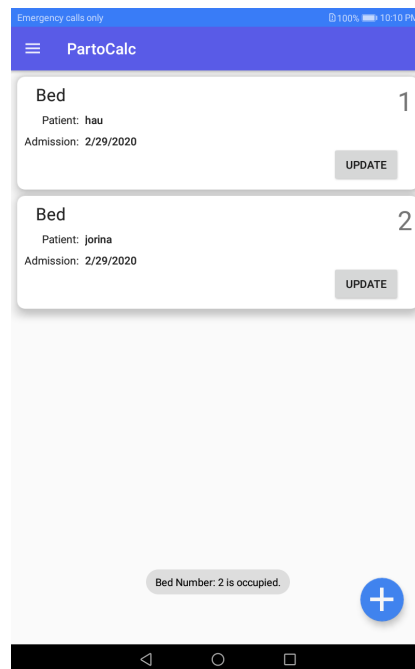


Figure 32

When an unoccupied bed is selected, a patient is created and assigned that bed number. In Figure 33, bed number 3 is selected. As it is unoccupied, a patient is created and assigned to that bed (Figure 34,35),

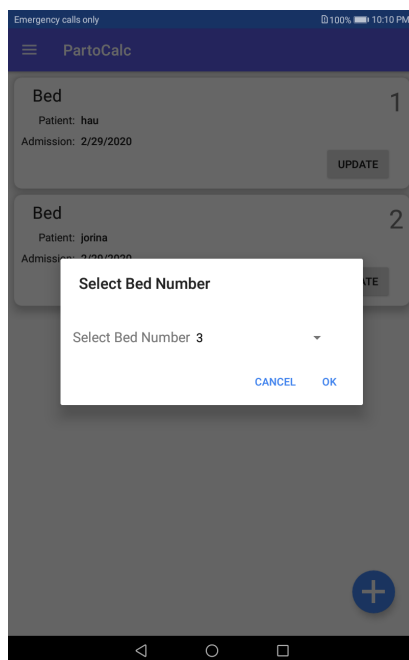


Figure 33

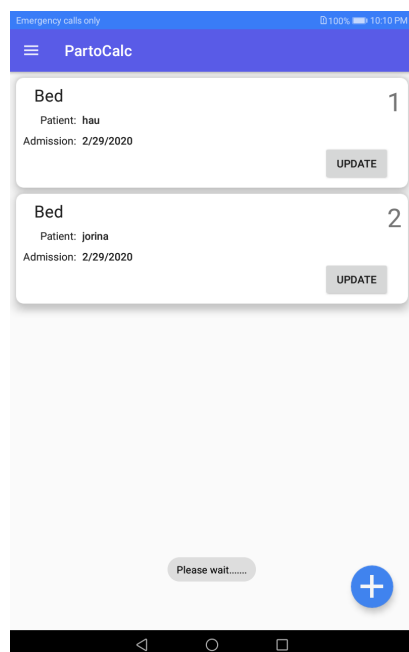


Figure 34

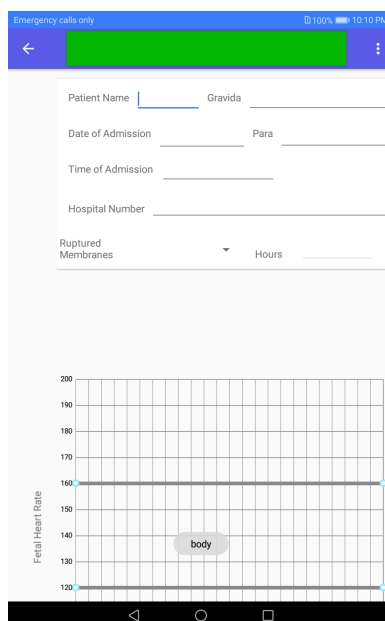


Figure 35

You can see the List of active patients by tapping menu icon on the top-left corner of the screen and then tapping the Active Patients option (Figure 36)

Tapping the Bed Management option, you can unassign a patient from a bed. That means the bed will be no longer occupied for that particular patient and will be available for a new patient.

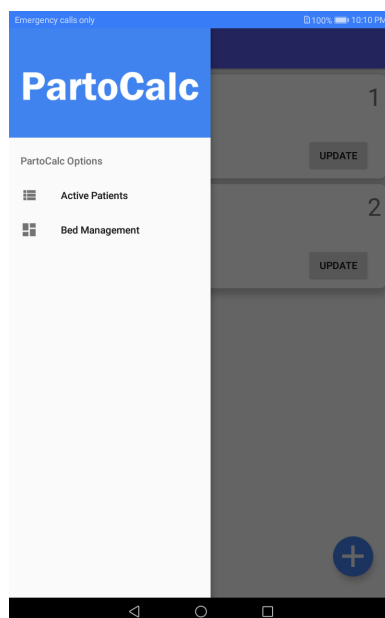


Figure 36

Bed Management Steps:

1. Click the Bed Management option
2. You will see the list of occupied beds.
3. Now, for example, if you want to unoccupy Bed 2, tap the delete button on the bottom-right corner of the patient list (Figure 37). The red delete icon at the bottom-right corner doesn't do anything on tapping.

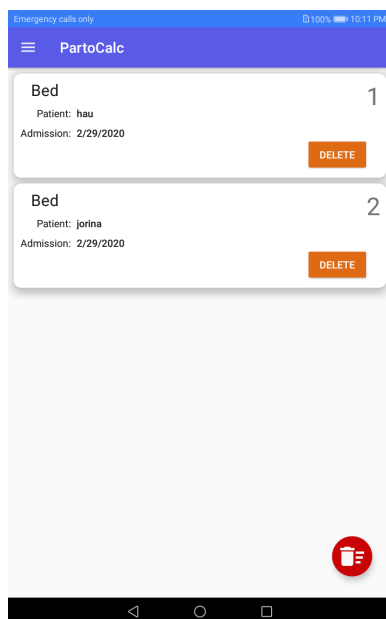


Figure 37

4. You will get a prompt asking if you want to delete the patient's partograph (Figure 38)
5. Press Yes to delete.

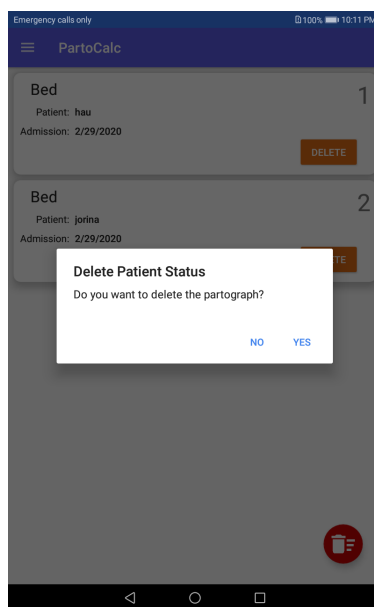


Figure 38

6. *Partograph for the patient in Bed 2 will be deleted from the list, but will be stored in the database so that it can be retrieved later if needed.*
7. *You will get a toast message at the bottom of the screen saying 'Partograph of patient was successfully deleted' (Figure 39). Now, bed 2 is unoccupied and a new patient can be assigned to bed 2.*

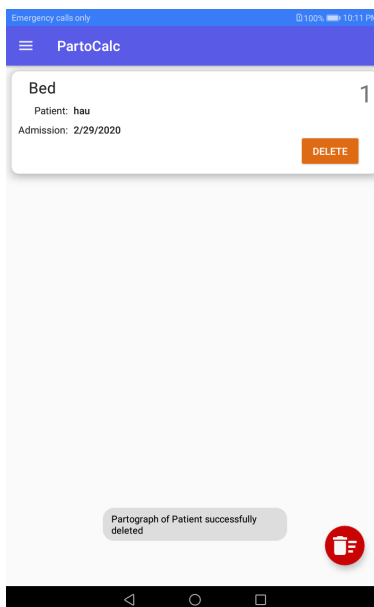


Figure 39