

DISCOVERY **HOSPITAL AT HOME**

BIOFOURMIS PLATFORM KNOWLEDGE BANK
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General Biofourmis

- **What is the Biofourmis Biovitals Index?**

The Biovitals Index (BI) sets up baseline vitals for a patient, and then measure any change from those baseline vitals. The Biovitals Index measures on a scale of 0-1. A score closer to 0 shows that the relationships among the patient's vital signs are similar to the baseline data. A score closer to 1 shows that the relationships among the patient's vital signs are different to the baseline data. A score closer to 1 signifies a higher risk for a clinical event.

- **What is the Everion device and for what is it used?**

The Everion device is a monitor that tracks:

- Pulse rate
- Heart rate variability
- Blood oxygen saturation
- Blood pulse wave
- Respiration rate during rest
- Activity
- Steps
- Skin temperature
- Energy expenditure

General troubleshooting guides and device guides – common issues and resolutions

- **The web dashboard shows a disconnection to the mobile device**

If the web dashboard shows a disconnection, do not sign out of the patient app. Check to see if the Everion is charged, and then follow the steps below. Only after you followed these steps, you can start to troubleshoot using the phone settings or reach out to the Biofourmis Technical Support Team.

Step 1: Check the battery status on the Everion and the mobile device. If a device's battery is flat, charge the device and confirm if there is a connection from the web dashboard.

Please note that the patient must wear the Everion sensor on their arm before it can show a connection.

Step 2: After checking the battery status, check that either *4G* or *Wi-Fi* shows on the top left of the phone screen (depending on how the patient connects).

Step 3: Check the loadshedding status.

Step 4: If the phone shows *4G* or *Wi-Fi*, and if the batteries are both charged, make sure the blue light is showing on the Everion and the patient is wearing the Everion correctly on the arm.

Please note: It can take a few minutes for the data to flow from the Everion to the phone and then to the cloud and finally to the web dashboard. The dashboard refreshes every 3 minutes.

- **How often is data synchronised between the patient app and web dashboard**

The Biofourmis web dashboard refreshes every 3 minutes. The data flows between the sensor and the app in real time, but the patient must wear the sensor on the arm for 2-3 minutes to collect data in the first place.

- **What is wrong if the Everion is not synchronising data to the Biofourmis web dashboard?**

If the Everion is no longer synching data to the Biofourmis web dashboard or patient app, it may no longer be paired to the patient's mobile device. Potential issues include

1. The Everion is out of range of the mobile device
2. The mobile device's battery is flat
3. The Everion's battery is flat
4. The Everion is not connecting to the Biofourmis patient app properly
5. Bluetooth is disabled



6. The patient is not wearing the Everion on their arm

• How do you pair the Everion to the mobile device?

While the Everion comes pre-paired, you may need to pair the device manually using the patient's app. If you see a red banner at the top of the home screen on the patient app, tap the arrow in the banner. It should show *Everion found*. Choose the device on the mobile screen and click **Connect**. If you do not see this message, make sure the Everion is within range of the mobile device and Bluetooth is enabled.

• How do you enable Bluetooth on the mobile device?

Tap the home button on the mobile device (the square icon at the bottom centre of the screen) to go to the mobile device's home screen. Tap on the down arrow on the top right of the device's home screen. If the Bluetooth icon is coloured blue, Bluetooth is enabled. If it is coloured grey, tap on the Bluetooth icon to enable it.

• The Everion is out of range of the mobile device. Will it still collect vital sign data?

If the Everion is out of range of the mobile device, the vital sign data will no longer show on the Biofourmis web dashboard at 3-minute intervals. Yet, the Everion will store data for up to 10 hours. When the Everion is back within range of the mobile device, a backlog of vital sign data will begin to appear on the Biofourmis web dashboard.

• The Everion device is showing a green light. What does this mean?

The green light will shine when you charge the Everion device. It will blink for 5 minutes after you take it off the charger and then turn off. This is unless you put the device on the patient's arm.

• The Everion device is showing a blue light. What does this mean?

The blue light will shine when the Everion device is connected to the mobile device. If the blue light begins to blink, the Everion is trying to connect.

• The Everion device is showing a blinking red light. What does this mean?

The blinking red light shows a device fault. If this happens, contact the Biofourmis Technical Support Team.

• The Everion device is showing no lights. What does this mean?

View the light screen on the back of the Everion device. If you do not see any lights, the Everion device is in sleep mode or the battery is flat.

• When does the Everion go into sleep mode?

After the Everion device has been in standby for 5 minutes, it goes to sleep. In the sleep state, the Everion device shows no lights and the mobile connection is closed. To wake up the Everion, place it on the charging dock or on the patient's arm.

• How do you wake up the Everion device?

To wake up the Everion, place it on the charging dock for a few seconds and then remove it from the dock. Wait for up to 40 seconds for the Everion device to power on. If the device does not power on after 40 seconds, you need to charge it.

Member dos and don'ts for the Everion device

Dos

- Charge the Everion device for a minimum of 2 hours a day.
- Use medical-grade alcohol to clean the Everion (if needed).
- Handwash the armband using gentle detergents.

Don'ts

The Everion is sweat-proof and water-resistant, but:

- Do not submerge it in water or wear it in the shower.
- Do not store it in direct sunlight or next to heat sources.
- Stop wearing it and let your medical team know if you develop a rash.



How to give a healthcare provider access to the dashboard

When you give a healthcare provider access to the dashboard, they will get an email inviting them to log on. There will be a link in the email and a temporary password. They must click on the link and enter their email address and the temporary password. They will then be asked to change their password.

Creating or verifying a patient account

How to create a patient account on the Biofourmis web dashboard

On the web dashboard's home page, click **Create a Patient** on the top right of the screen. From the **Create a Patient** screen, fill in all the required fields and then click **Submit**. Please make sure that you fill in the emergency contact details. The patient is ready to be onboarded at their location.

After you created a profile for the patient, find the patient on the Biofourmis web dashboard. Click on their name to open their **Patient details page**, and then click the **Information** tab. From the **Information** tab, click the pencil icon to edit their information. At the bottom of the screen, change their onboarding status to **Onboarding complete**. You must complete this step before the patient can sign in to the app.

How to sign-up the patient at their location

After you created the patient in the Biofourmis web dashboard, it is time to visit them and onboard them with their devices. Complete the following steps after you arrive at the patient's location:

Step 1: Take the Everion out of its package and place it on the charger.

Step 2: Sign into the Biofourmis patient app. Help the patient to set up a new password.

Step 3: Ask the patient to read the terms and conditions.

Step 4: Take the Everion off its charging dock and confirm that the blue light is flashing on the device. Wait 1 minute for the Everion to find and connect to the mobile device.

Step 5: Apply the Everion device to the patient's arm.

Step 6: Confirm that the data is synchronising from the patient's mobile device to the Biofourmis web dashboard. Please note that it may take up to 10 minutes for the data to be visible on the Biofourmis web dashboard.

Step 7: Explain and show to the patient how they must complete the daily questionnaires within the app.

How to offboard a patient

When the patient is ready to be offboarded, disconnect the Everion device using the patient's mobile device. Tap **Settings** → **Device** → **Everion** → **Switch off device**. Log out of the app. Switch off the mobile phone.

After the device is disconnected, complete the following steps.

Step 1: Deactivate the patient on the Biofourmis web dashboard

1. Go to the patient's record on the dashboard.
2. Click on the **Information** tab.
3. Click on the pencil icon to edit the patient information.
4. Change the status to **Deactivated**.

Step 2: Clean the devices



Clean the devices with clinical-grade wipes.

Step 3: Hard reset the Everion device

1. Place the Everion on the charging dock.
2. Wait until all lights are off or until there is a solid green light on the Everion device.
3. Place a finger on the reset button until the device vibrates once and the red light shows. Remove your finger immediately.
4. The device should vibrate twice if you completed the reset correctly.

Navigating the Biofourmis web dashboard

How to add a patient on the Biofourmis web dashboard

On the web dashboard's home page, click **Create a Patient** on the top right of the screen. From the **Create a Patient** screen, fill in all the required fields and then click **Submit**. Please make sure that you fill in the emergency contact details. The patient is ready to be onboarded at their location.

After you created a profile for the patient, find the patient on the Biofourmis web dashboard. Click on their name to open their **Patient details page**, and then click the **Information** tab. From the **Information** tab, click the pencil icon to edit their information. At the bottom of the screen, change their onboarding status to **Onboarding complete**. You must complete this step before the patient can sign in to the app.

How to communicate with the patient through the web dashboard and patient app

1. Choose a patient to access their patient record from the web dashboard's home page.
2. On the **Patient details** page, there are two communication icons on the far right of the screen:
 1. Click the chat icon to view or send messages.
 2. Click the video icon to start a video chat with that patient.

How to use the medicine section on the Biofourmis web dashboard

The medicine section allows you to view and manage patient medicine. To access it:

1. Choose a patient to access their patient record.
2. From within the patient record, click **Medications**.
3. The medicine section appears with the **active medication**, **discontinued medication** and **add new medication** options.
4. From here you can add new medicine, view a patient's compliance report and stop medicine.

How to add a new medicine on the Biofourmis web dashboard

1. Choose a patient to access their patient record.
2. From within the patient record, click **Medications**.
3. On the top right of this window, click **Add a new medication**.
4. Fill in the required fields.

For the **Sessions** field, these letters correspond to the times of the day:

- **M** = morning
- **A** = Afternoon
- **E** = Evening
- **N** = Night

Use the **Notes** field to enter instructions to the patient. The patient can see these notes on the Biofourmis patient app.

5. Click **Submit**.

How to view a patient's vital sign data

You can see a list of patients on the Biofourmis web dashboard home page. Next to the list are columns with vital sign data. Click on a patient's name for more detailed patient information and vital sign graphs.

Why some vital signs are shown in colour on the Biofourmis web dashboard home page

- Vital sign values are in black if the value does not break the critical threshold and is not in the medium range.
- Vital sign values are in orange if the value is in the abnormal range.



- Vital sign values are in red if the value is outside the critical range.

The display colour changes based on the next sync value regardless of the alert status.

Note: the vital signs displayed on the dashboard is the last recorded vitals, which may not be the value that caused the alert to trigger. You can see the value and the date and time that the alert was triggered in the patient record.

How patient alerts are triggered

There are two ways in which the platform will generate alerts:

1. **Static alerts** will fire when a vital sign goes outside a pre-set threshold. Static alerts are used for episodic vitals, such as weight and blood pressure.
2. **Smart alerts** consider the patient's condition by creating a unique baseline. Alerts will not fire unless a vital sign falls outside a pre-set threshold and there is a difference from the unique patient baseline. Smart alerts are used for continuous vitals, such as heart rate and respiratory rate and studies have shown that it reduces the alert burden by over 80% when compared to traditional static alerts.

How to view the details of an alert on the Biofourmis web dashboard

1. Choose a patient to access their patient details page.
2. From the **Patient details** page, see the **Events Report** on the right side of the screen. You can view open events and closed events, with the values, dates and times that caused these alerts to trigger.

How to adjust the patient's thresholds

1. Choose a patient to access their patient details page.
2. From the **Patient details** page, click on the threshold icon in the patient action icons list on the far right of the screen.
3. Click the pencil icon in the upper right corner of the threshold window to enable editing.
4. Click, hold and drag on the sliders of the desired vital thresholds to change them.
5. Click **Save** once complete.

Note: You can also snooze specific vital sign notifications for a set time.

How to listen to a patient's audio sample

Patients can submit cough and speech samples. To access these audio clips:

1. Choose a patient to access their patient details page.
2. From the **Patient details** page, click on the **Audio** tab above the vital signs graph.
3. Click an audio sample to listen to the patient's recording.

How to access patient evaluations and questionnaires

Assigning a questionnaire and editing the patient's questionnaire schedule are tasks that you should only do in unique circumstances where you need to make changes outside the standard care path.

1. Choose a patient to access their patient details page.
2. From the **Patient details** page, click the **Evaluations** tab above the vital signs graph. The screen will show a calendar of questionnaires and compliance.
3. To assign a new questionnaire, click the **Assign a questionnaire** button on the top right of the screen.

How to edit a patient's evaluations schedule

While patients will be asked to answer questionnaires at specific times according to their care path, you can edit the questions and the times by which the patient needs to fill them out.

Choose a questionnaire from the evaluations page and then click the ellipses icon next to a question. You can edit the schedule or remove the question.

How to view a patient's device status

1. Choose a patient to access their patient details page.
2. From the **Patient details** page, click on the device icon located on the far right of the screen. It is the 5th icon down on the list, or 2nd from the bottom.



3. After you clicked the icon, view the device's battery status and more.

Navigating the Biofourmis patient app

How the patient can complete a daily task

1. From the patient app home screen, the patient should tap **To complete** or **When necessary**
2. They then tap on the task they would like to complete.
3. They will see instructions on how to pair the device and complete the task.

The questions are based on the care path the patient is on.

How the patient can message their care team through the patient app

A patient can chat with a care team member if they have a question, doubt or concern they would like to share.

When the patient sends a message through the app, the care team that is monitoring the dashboard, will get an alert that a message has been sent to them.

How the patient can view their medicine

1. The patient should tap the medicine icon on the bottom of their home screen to access the **Medications** page.
2. On the **Medications** screen, they can see all active medicine.
3. The patient can also click to view their stopped medicine.

Note: If there is any change to the status of a patient's medicine, a message will appear on the patient app home screen. The patient must click this message and acknowledge the change.

How the patient can view notifications

The patient can tap the notification bell to access the reminders screen. The notification bell is in the bottom right corner of the screen.

On the reminders screen, patients will see a list of their notifications. Notifications range from reminders to charge the devices to reminders to complete the tasks their care team assigned to them.

How the patient can view their vital signs

The patient can view their vital sign measurements on the vitals page by tapping the vitals icon on their app's home screen. When the patient scrolls down on the vitals page, they can view their current and past data.

How the patient can view their activity log

The activity log shows which tasks are complete and incomplete. To view the activity log, the patient should tap the activity log icon in the top right corner of the patient's home screen. After the patient clicks the icon, they will see their tasks for the day.