Sleeping Management Software

(ResAssist for App)

User Manual

Resvent Medical Technology Co., Ltd.

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1 Software overview

1.1 Introduction

The Sleep Management Software is hereinafter referred to as "ResAssist for APP" or simply "ResAssist". The ResAssist for APP is an application software developed based on mobile smart phones. It is used to manage the patient sleeping data obtained by using the Resvent positive pressure ventilation therapy device. This software is an App application software, which needs to be installed and used on the mobile phone. Patient and doctor can log in through the App.

1.2 Product information

Product name	Trade name	Product model	Software version
Sleep Management Software	ResAssist	ResAssist for App (Android)	Refer to the [Mine]→[About] in the software interface
Sleep Management Software	ResAssist	ResAssist for App (IOS)	Refer to the [Mine]→[About] in the software interface

1.3 Intended use

ResAssist is intended to receive patients data from Resvent compatible devices (Positive Airway Pressure System) via SD cards/Wifi/GSM and process them into data reports. When doctors make healthcare decisions, the data can be used as one of the references. ResAssist can be used in APP and application. The software in APP can remotely change the parameters of Resvent compatible devices(e.g. ventilation mode, treatment pressure, humidity, etc.) to treat obstructive sleep apnoea(OSA) under the accounts of doctors.

1.4 Intended users

"ResAssist software is intended for use by:
Patients who receiving therapy through Resvent Positive Airway Pressure System,
Physicians managing patient-related data, and Authorized service institutions (including Resvent PAP Device Distributors and Service Providers).".

User qualifications:

The person operating the software by the instruction in the user's manual is referred as the "user". The person operating the device by the instruction in the user's manual is referred as the "user". In contrast, a "patient" is the person receiving the therapy. Always perform all the operating steps in accordance with the user's manual.

Clinicians can receive specified professional training from the manufacturer-authorized distributor regarding proper device operation.

User Obligations:

During the use of the software in conjunction with the device, if any serious incidents occur, please follow these steps:

1. Immediately stop using the software and related devices.

2. Record the details of the incident.
3. Contact Resvent and report the incident to the regulatory authorities in your country or region. Resvent will promptly address the issue and improve the product to ensure the safe use by other users and patients.

Note: The “distributor” refers to the distributor of Positive Airway Pressure System supplied by manufacturer.

1.5 Intended patient

The patient population of Sleep Management Software is adult.

1.6 Contraindications

Refer to the user guide of the attached Resvent compatible devices (Positive Airway Pressure System) for contraindications or adverse effects.

1.7 Indications

Patients who suffer from obstructive sleep apnoea.

1.8 Clinical benefit

The ResAssist indirectly benefit patients with promoting treatment adherence by allowing doctors to remotely access sleep and treatment data and modify treatment plans.

1.9 Recommended configuration

Android	Hardware	RAM	2GB and above
		CPU	1GB and above
		Display Resolution	1280*720 and above
		Bluetooth	Bluetooth 4.0 and above
	Software	System	Android 9.0 and compatible
		Browser	Google Chrome Version 103.0 and above
		PDF Reader Software	(Adobe Reader®)
IOS	Hardware	RAM	1GB and above
		CPU	A8 and compatible
		Display Resolution	1334×750 and above
		Bluetooth	Bluetooth 4.0 and above
	Software	System	IOS 10.0 and above
		Browser	Safari iOS Version 10.0 and above
		PDF Reader Software	(Adobe Reader®)

1.10 Software Features

No.	Custom Functions	Performance efficiency
1.	Accuracy of treatment data	The software has a 100% preparation rate for data statistics uploaded by devices.
2.	Generate compliance report	The report generation time is less than 30 seconds.
3.	Homepage statistics	The calculation time for statistical data is less than 30 seconds.
4.	Data access	The response data loading time is less than 10 seconds.
5.	Sleep waveform loading	Loading time less than 10 seconds.

6.	User concurrency	The number of concurrent web side users is within 4500.

2 Basic Operations

Note:

- It is recommended to install genuine antivirus software on your smartphone to protect your phone and software from attacks.
- When using the software, you need to turn on the Bluetooth function of your cell phone when it involves the Bluetooth function.

2.1 Installation

Android

You can install the ResAssist software through the following two methods:

- Visit the following link to get the ResAssist APK for Android;

https://resassist.resvent.com/ResAssist-app/html/APP.html

- On your Android phone, access the Google Play Store, search for "ResAssist" and download ResAssist for App to install it.

IOS

On your Android phone, access the AppStore App Store, search for "ResAssist" and download ResAssist for App to install it.

2.2 Uninstallation

Android

Long press the installed ResAssist software icon, click Uninstall in the pop-up uninstallation prompt, the uninstallation of the second confirmation pop-up screen, click to confirm the uninstallation, complete the uninstallation of the software.

IOS

Long press the installed RessAssist software icon to enter removal mode and click Delete to complete software removal.

2.3 Upgrade

1. when the software is updated with a new version, the vendor updates the latest software to the server and adds a version number;
2. When you log in to the App, a new version upgrade prompt appears;
3. Click Upgrade to start upgrading the new version and follow the prompts to complete the software upgrade;
4. After the upgrade is completed, log in to the App again to use the new features.

2.4 Delete Account

On the software operation interface, click on [**Me**] → then click on [**Delete Account**] to log out and delete the currently logged-in account.

Note: After your account is deleted, all user data will be completely erased and cannot be

recovered, and the account will no longer be usable.

2.5 Accessing the electronic user manual

You can download the electronic user manual in the following two ways:

- Go to [**Mine**] → [**About**] and click [**Download the electronic user manual**].
- When entering the software, if the electronic user manual cannot be accessed or downloaded normally, you can enter “https://www.resvent.com/en/software-information.html” link to download the electronic user manual.

Note:

- You can download the latest manual and all previous versions of the manual.
- You can contact the after-sales service personnel of Resvent to obtain the electronic user manual and printed manual.
- The Configuration requirements for viewing the electronic manual can be found in Section 1.9.

2.6 User role

ResAssis software terminal doctors, patients can log in to use, different roles after logging in, you can use different operational functions, the following is the role of the operation of the instructions.

No.	Role	Description
1	Doctor	View patient therapy data, generate reports, and manage patient information.
2	Patient	View patient therapy data, generate reports, and connect to WiFi for device.

3 Doctor function

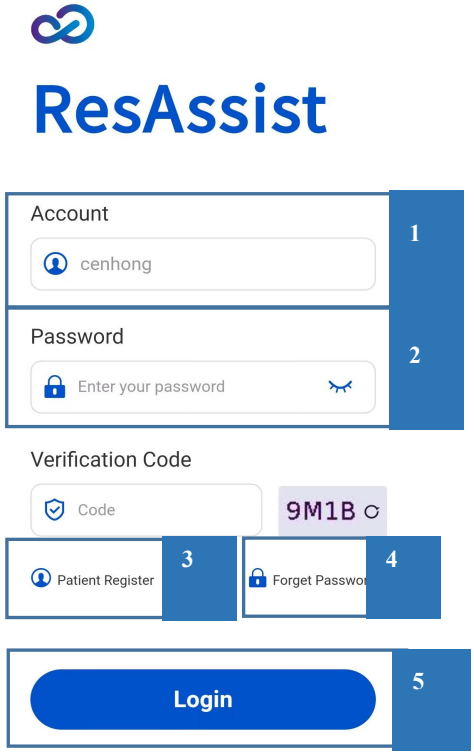
3.1 Doctor main functions

After a doctor logs into ResAssist, the following main functions are included.

1. Sleep: view patient therapy data;
2. Chat: send messages, view history message records;
3. Mine: view and edit personal information and so on;

3.2 Login

Click on the installed ResAssist App to enter the login screen, enter your login account and password on the login screen, and click Login to enter your doctor's homescreen.



No.	Description
1	Account Input Box
2	Password input box
3	Register new account (only patients can register through this function)
4	Retrieve login password
5	Login button

Note:

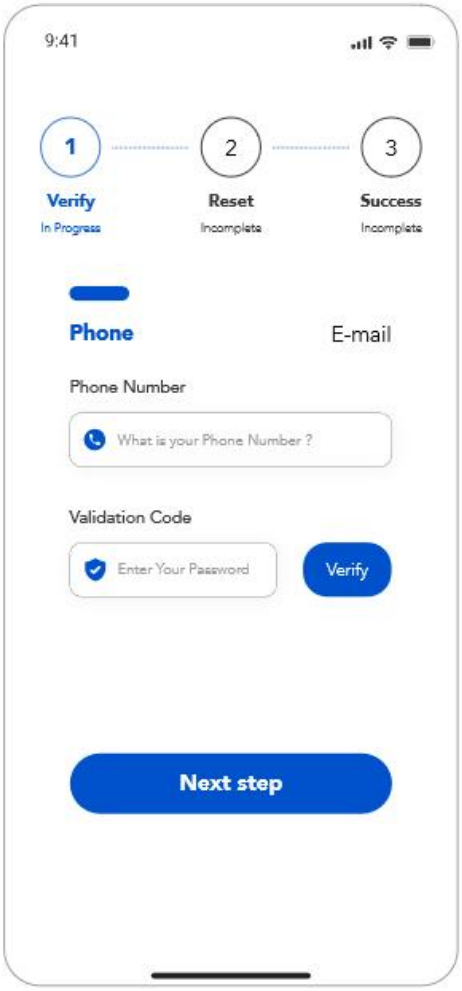
- The doctor account is created by the institution, the App does not provide registration, please refer to the Web-side operation guide for creation guidelines.

3.3 Forgot password

1. Click Forgot Password in the login screen to enter the password recovery screen, as shown in

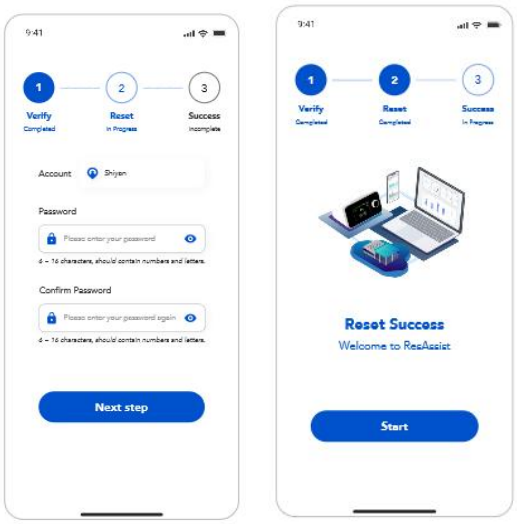
the following figure.

2. In the screen of reset password screen, enter the e-mail address during registration, click "Send Verification Code", the system sends the link of reset password to the specified e-mail address, after logging in the e-mail, get the verification code, fill in the verification code to the verification screen, click "Next" , enter the reset password screen.



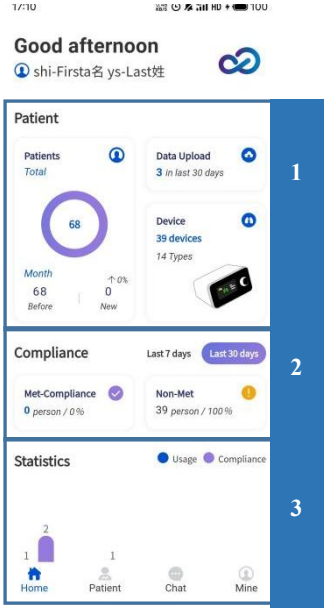
3. Enter the new password twice in the reset password screen, you can check "Show Password" to show whether the password is correct or not.

4. Click "Next" to submit the modified password, as shown in the figure below the modified password is successful, click the bottom of the "Go to Login" to jump to the login screen.



3.4 Doctor home screen

When a doctor logs in, he or she is taken to the doctor's home screen by default. The doctor home screen displays an overview of the patients managed by the current doctor, compliance profile and compliance statistics. In the compliance Profile and compliance Statistics, users can switch between the last 7 days and last 30 days to view the performance of the patient data for the corresponding time period.

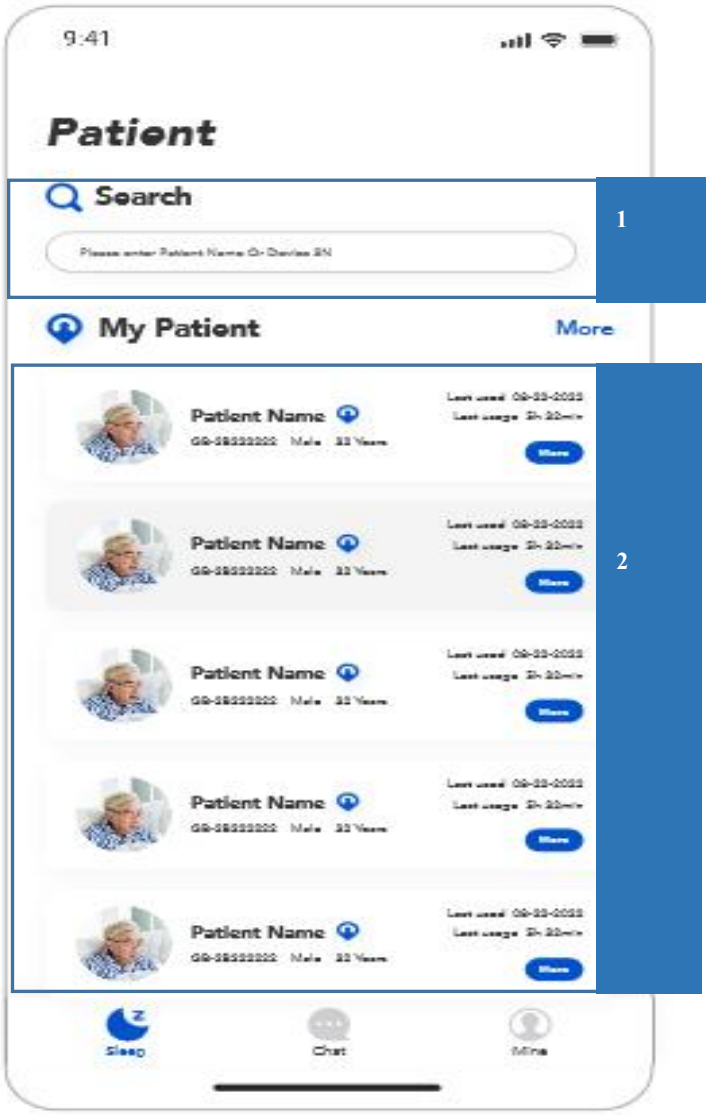


No.	Description
1	Patient overview: number of patients, number of sleep reports, total number of devices, number of uploads in the last 30 days, number of SD card devices, number of WiFi devices.
2	compliance overview: number of adherent patients, number of non-adherent patients, not used.
3	compliance statistics: number of people corresponding to each use period.

3.5 Patient list

3.5.1 Patient list

1. Click the card or More in the Patient Home screen to enter the Patient List. In the Patient List, the doctor can search for the specified patient information by name. The patient information contains: name, gender, age, device model, and SN.



No.	Description
1	Patient Search Input Box
2	Patient List

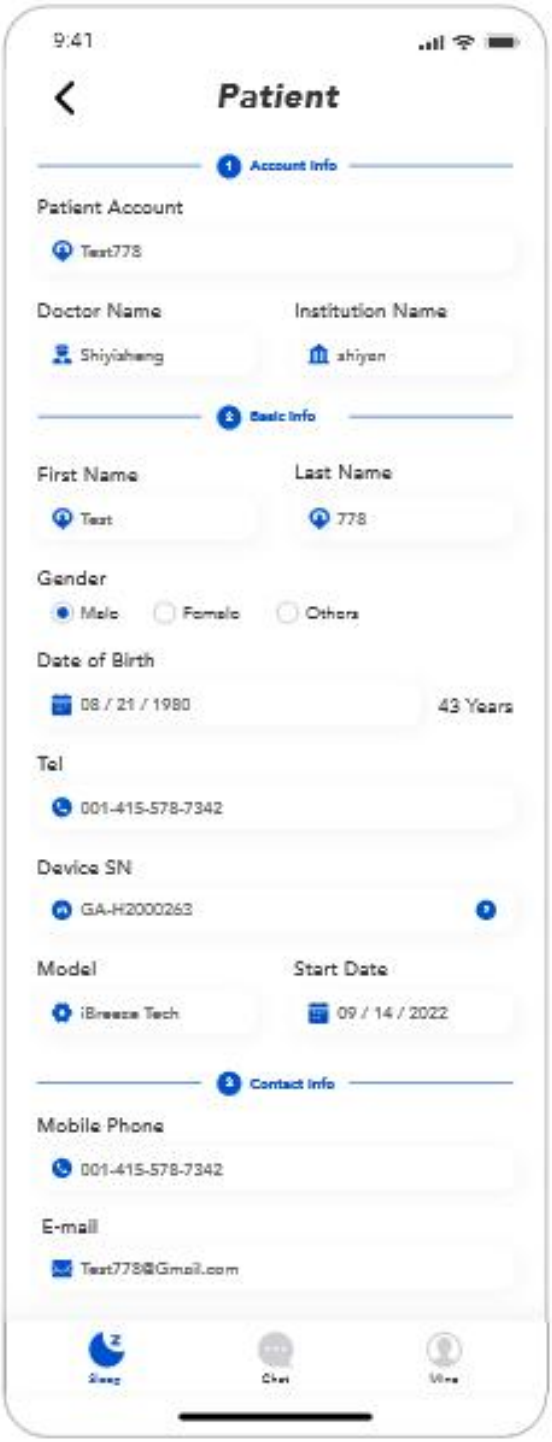
3.5.2 Patient details

1. Clicking on the specified patient in the list will take you to the patient details screen. The patient detail screen displays basic information about the patient and a preview of the data for the last 7 days/30 days. Doctors can select a time period to view the patient's total usage hours, total usage hours ≥ 4 hours, and daily usage hours for that time period.

No.	Description
1	More: Entrance to the patient's personal information screen
2	Device SN, last use hour, last use date, registration time
3	Sleep Diary/Sleep Report: Entry to therapy Data screen
4	Overview: 7 days/30 days total use days, ≥4 hours days
5	Daily status: 7 days/30 days daily use time

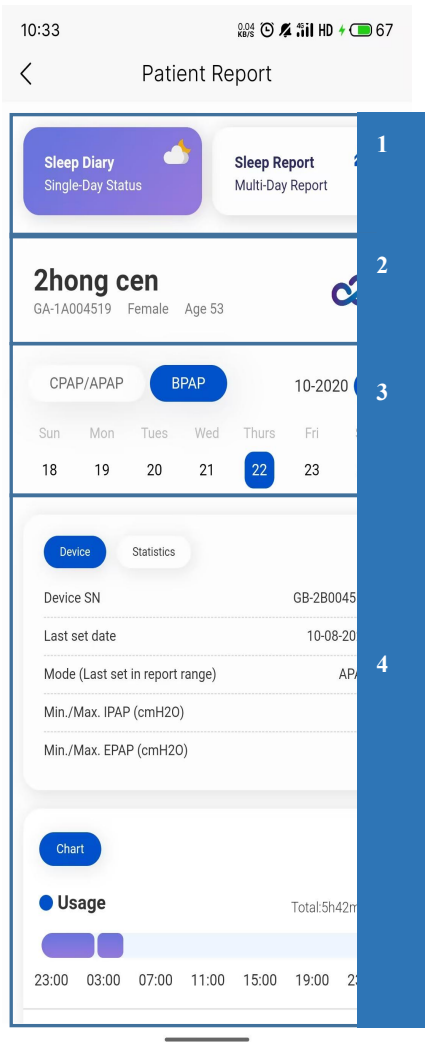
3.5.3 Patient information

1. Click More in Patient Details to access the Patient Information screen. The Patient Information screen displays the basic information that the patient filled out during registration.



3.5.4 Sleep diary

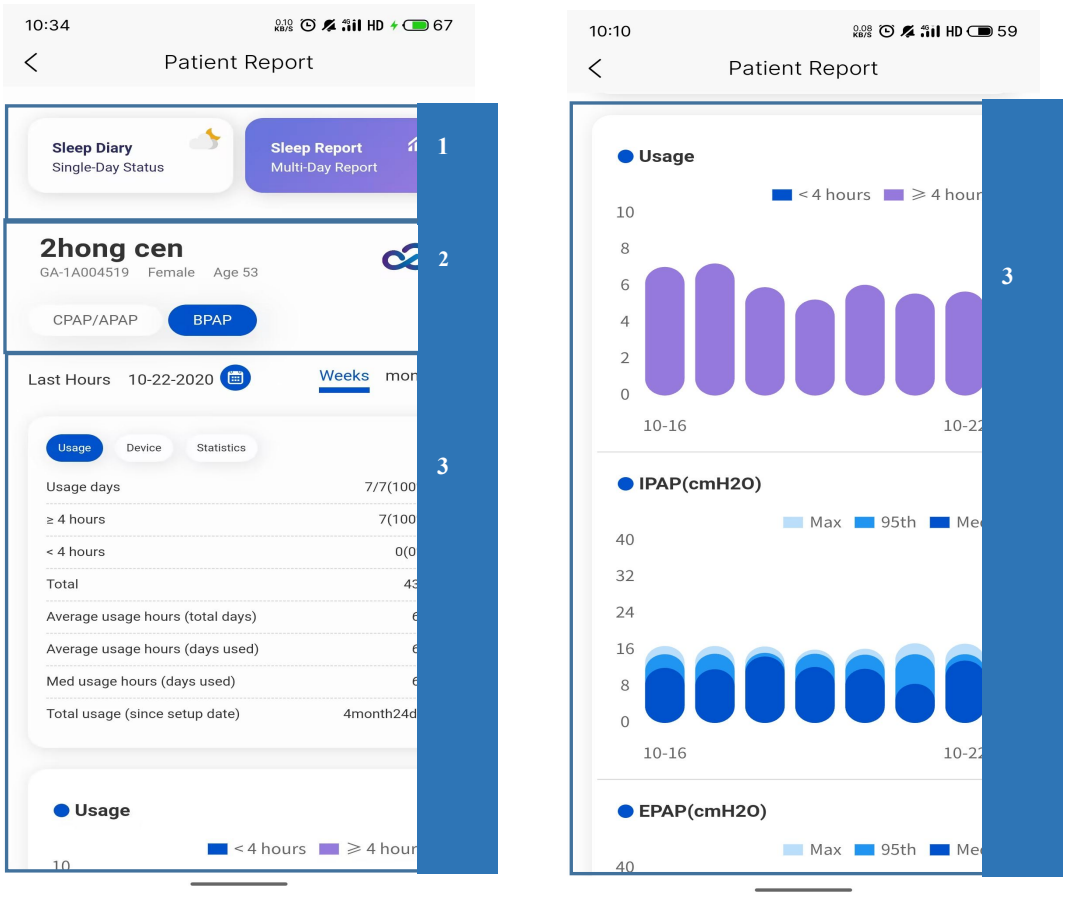
1. Click on the Sleep Diary in Patient Details to view the patient's single day therapy data. After entering the sleep diary, click the sleep report button at the top to switch to the patient's multi-day therapy data for viewing. In the sleep diary, users can switch to CPAP/APAP or BPAP mode to view the corresponding therapy data according to the model respectively. The screen will be fixed with cards to display device information and therapy statistics, and graphs to display the corresponding therapy parameter waveforms. When the selected therapy mode is CPAP/APAP, the screen display is as follows:



No.	Description
1	Operation Buttons: Sleep Report/Sleep Diary Entry
2	Basic patient information
3	Date selector

3.5.5 Sleep report

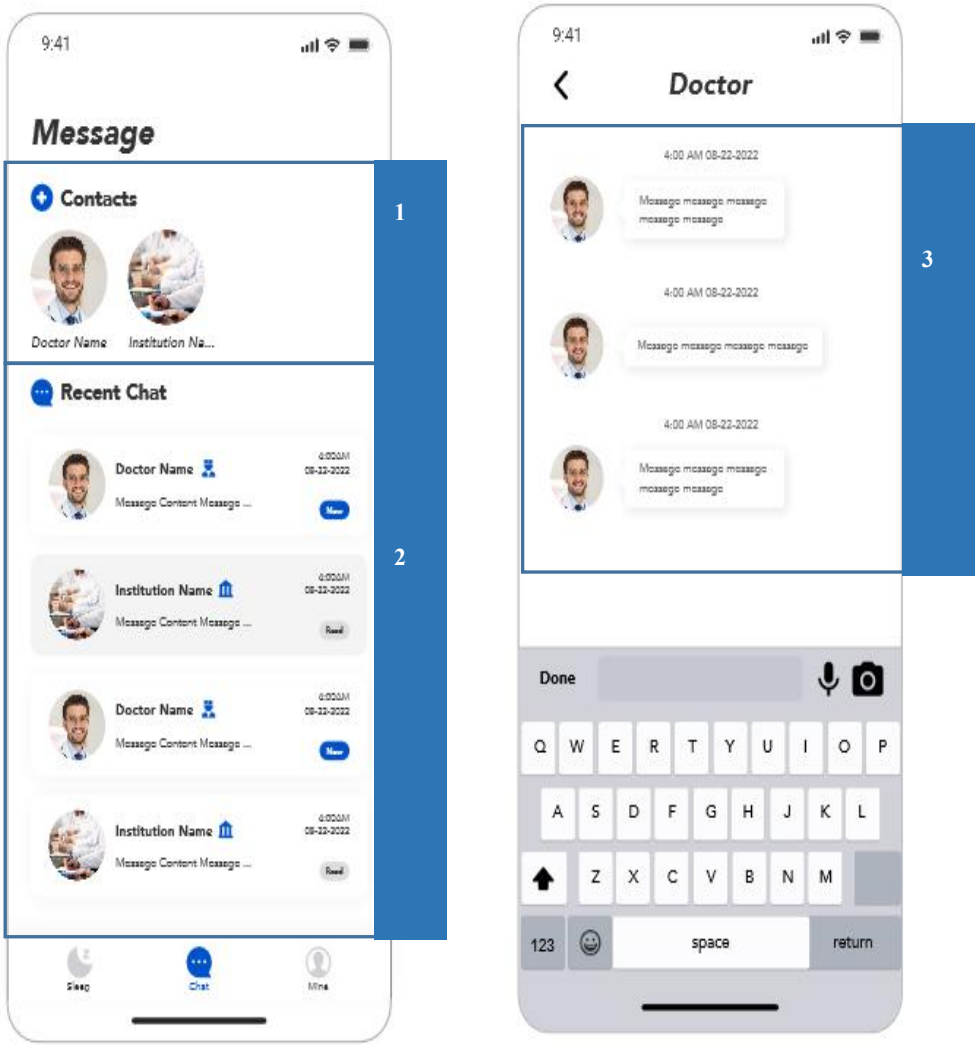
1. Click Sleep Report in Patient Details/Sleep Diary to access the Sleep Report screen. This screen displays the patient's multi-day therapy data. In the sleep report, users can select a fixed period of time and switch CPAP/APAP or BPAP mode to view the corresponding therapy data according to the model. The screen will display the device information and therapy statistics with fixed cards and the corresponding therapy parameter waveforms with graphs. When the selected therapy mode is CPAP/APAP, the screen display is as follows:



No.	Description
1	Operation Buttons: Sleep Report/Sleep Diary Entry
2	Basic patient information
3	usage/device/therapy Statistics

3.6 Message

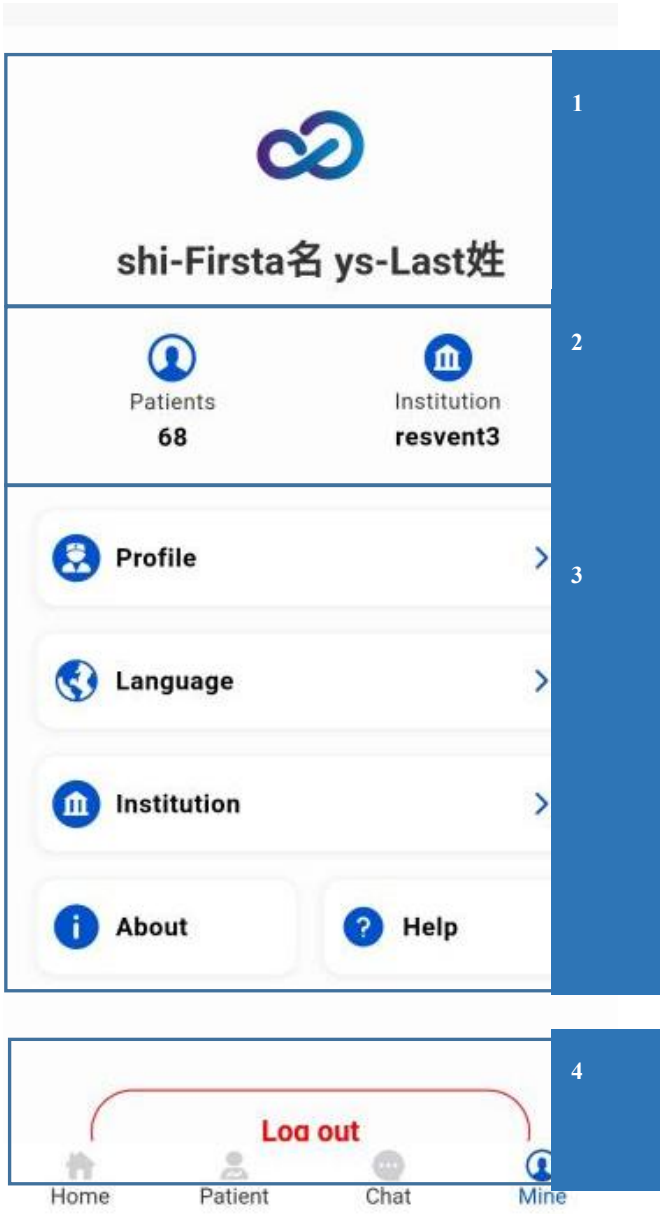
1. Click on chats in the bottom menu module to go to the message list. The message list will show the contacts and history of chats for that user. Click on the contact's avatar or chat history to access the chat window. The user can send a message to the contact in the chat window.



No.	Description
1	My Patients
2	chat History
3	chat Window

3.7 Mine

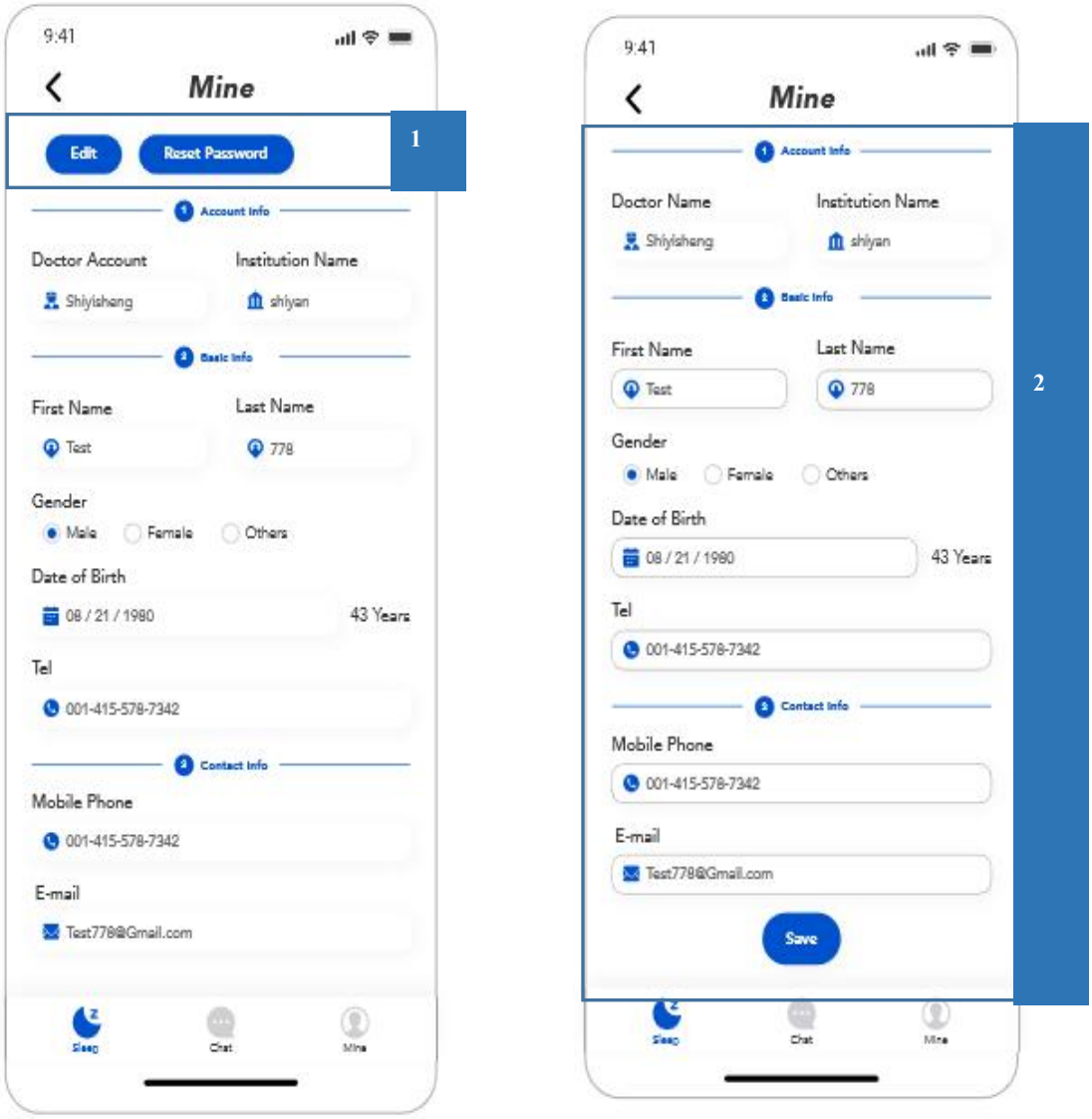
1. Click Mine in the bottom menu module to enter the Mine screen. This screen shows the doctor's basic information, institution, and number of associated patients. Click Personal Information, institution Management, Help, About button to jump to the corresponding screen to view the relevant content. Click Exit to log out of your current account.



No.	Description
1	Doctor's basic information: name, gender, date of birth, age
2	Number of patients, institution
3	Operation buttons: personal info,language, institution, about, help
4	Operation buttons: Log out

3.7.1 Personal information

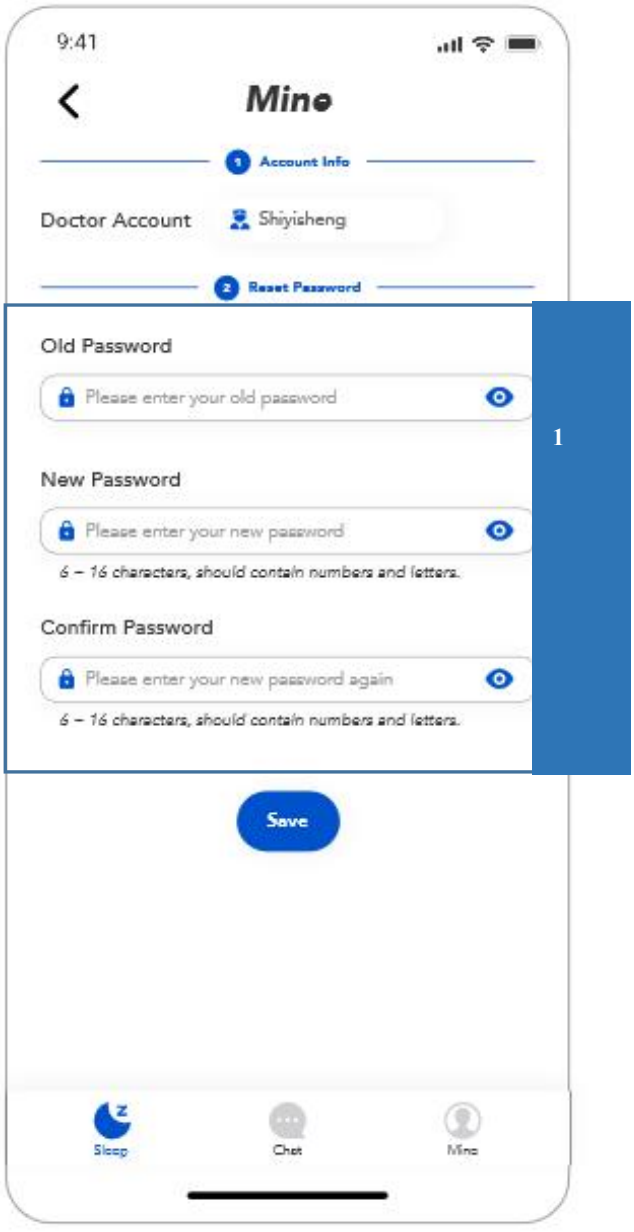
1. Click Personal Information in Mine to enter the doctor's personal information screen. Doctors can click the Edit button at the top to modify their personal information.



No.	Description
1	Operation buttons: edit, change password
2	Doctor's basic information: doctor's account, institution name, name, gender, date of birth, phone number, cell phone, email address

3.7.2 Change Password

1. Click Change Password in Personal Information to enter the Change Password screen. In this screen, users need to enter the old password, the new password and the confirmation password, and the confirmation password should be the same as the new password. Click Save to complete the password change.



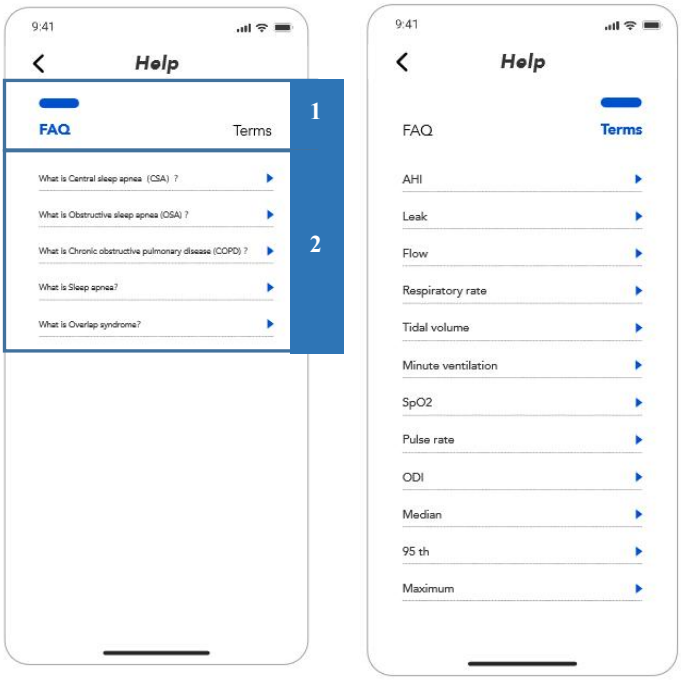
No.	Description
1	Password information: new password, old password, confirmation password

3.7.3 Switching institution

Click institution Management in Personal Information to enter the institution selection screen. Doctors can switch to different institutions in this screen, and click Confirm after switching, then the ResAssist data will be refreshed automatically. When the doctor returns to the home screen and the patient list, he/she can view the patients under the switched institution under his/her current account.

3.7.4 Help

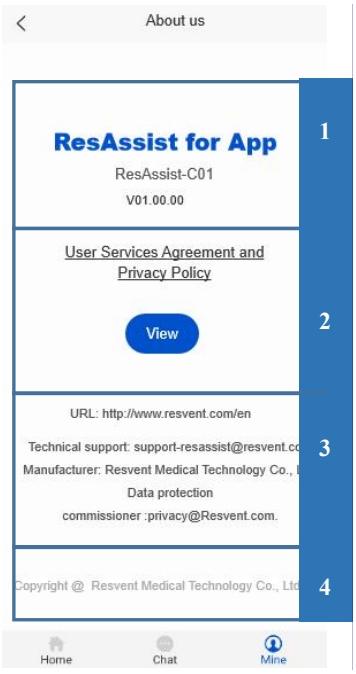
Click Help in Mine list to enter the Help Center, which contains: Frequently Asked Questions, Terminology.



No.	Description
1	Toggle Button: FAQ, Terminology
2	FAQ details and terminology details

3.7.5 About

Click About in Mine to enter the details screen, which contains: product name, service agreement and privacy policy, contact e-mail, and manufacturer.



No.	Description
1	Product Name, version
2	Service Agreement and Privacy Policy
3	Contact information: Data Protection Officer, contact number, support e-mail address
4	Manufacturer Name

4 Patient Function Introduction

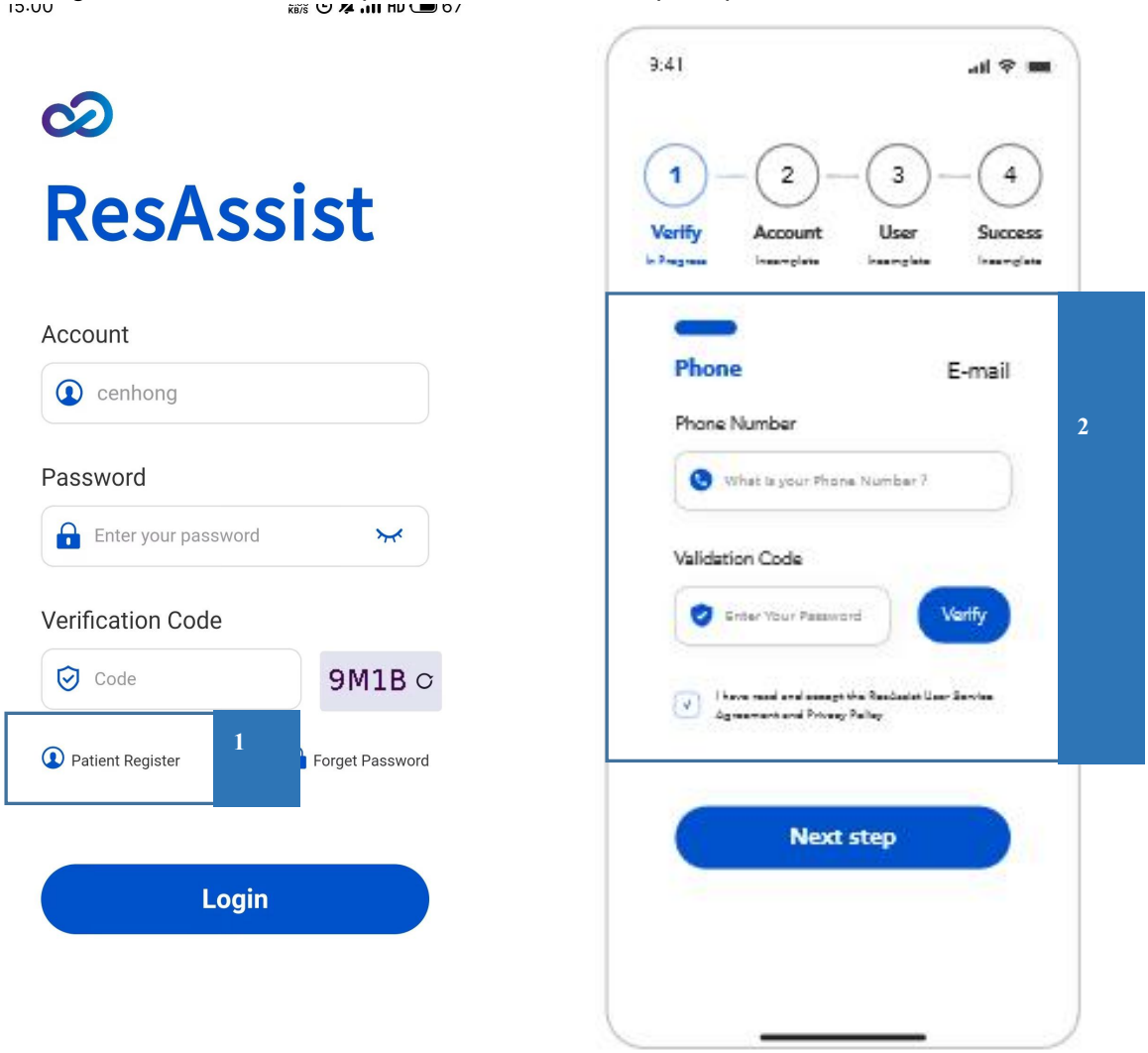
4.1 Patient main function

After the patient logs into the ResAssist App side, the following main functions are included.

1. Sleep: view patient therapy data;
2. chat: send messages, view history message records;
3. Mine: view and edit personal information, connect to devices and WiFi, etc;

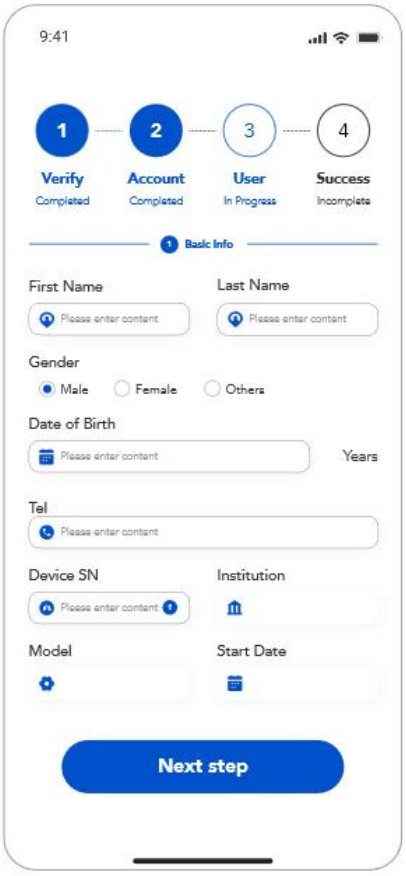
4.2 Patient registration

1. After the patient enters the ResAssist App, click Register on the login screen to enter the registration screen. When registering, you need to verify your cell phone number or email address. After filling in the cell phone number or email address, click Send and the system will send the verification code to the filled cell phone/email address. Enter the verification code and check the user agreement, click Next to proceed with the subsequent process;

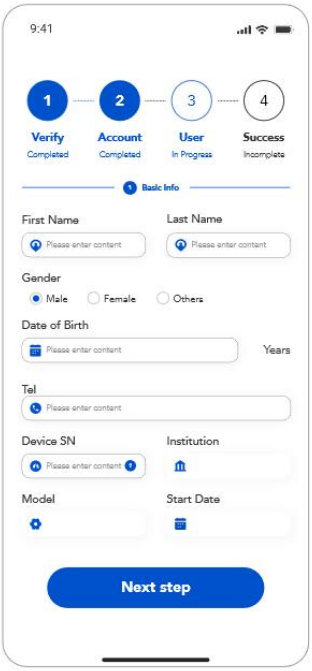


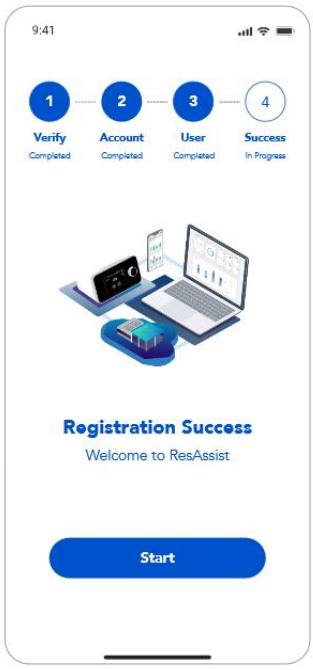
No.	Description
1	Action Button: Patient Registration
2	Verification information: cell phone number / email, verification code, privacy agreement

2. After the authentication is completed, enter the account information filling screen. In this screen, the user needs to enter the account number and password. The account number and password entered by the user will be used as the login credentials. After the input is complete, click Next to enter the subsequent process.



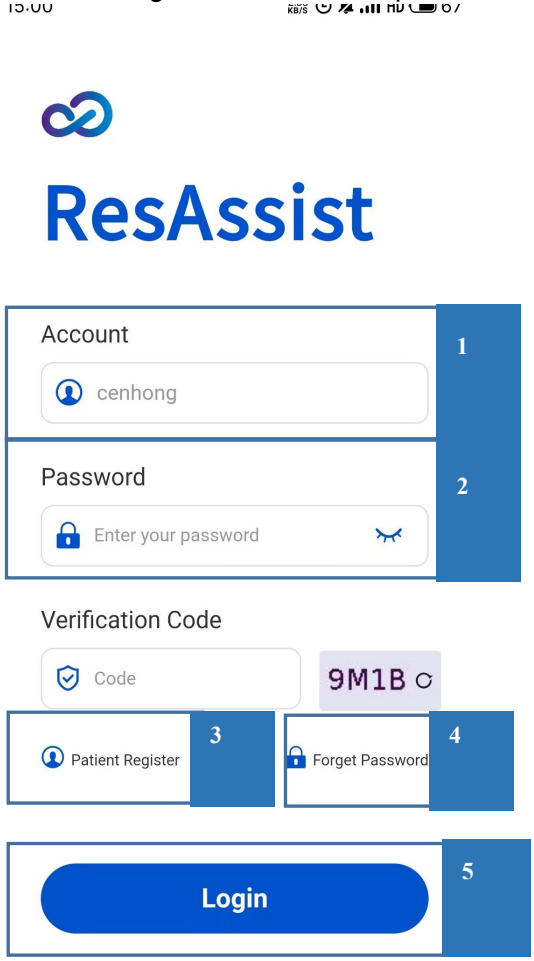
3. Once the account information is filled in, click Next to enter the Personal Information screen. In the personal information screen, users need to enter the relevant name, gender, date of birth, phone number, device SN. after entering, click next to complete the registration.





4.3 Login

1. Click on the installed ResAssist App to enter the login screen, enter your login account and password in the login screen, and click login to enter the sleep assessment screen.



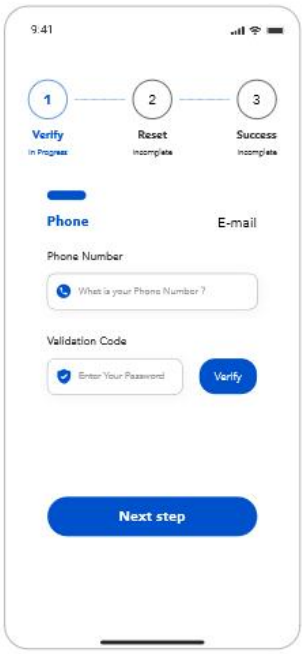
No.	Description
1	Account Input Box
2	Password input box
3	Register new account (only patients can register through this function)
4	Retrieve login password
5	Login button

Note:

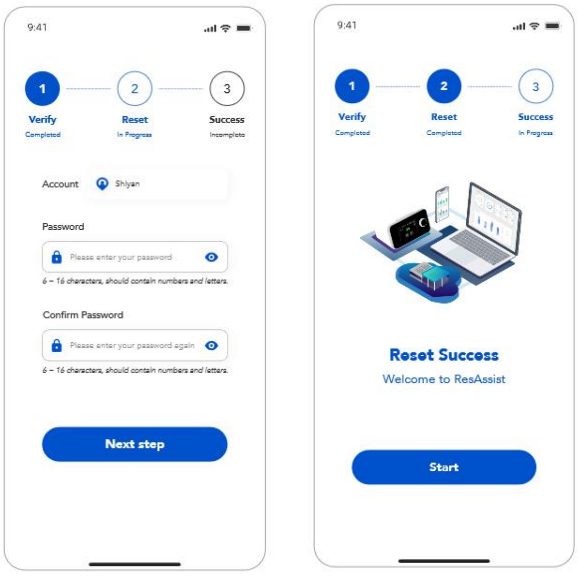
- If your login account is frozen, it may be due to unauthorized personnel attempting to log in multiple times with your account, resulting in multiple password errors and account freezing. Please contact after-sales support as soon as possible for assistance.
- If your account prompts a password error during login, please reset your password or contact after-sales support immediately.

4.4 Forgot password

1. Click Forgot Password in the login screen to enter the password recovery screen, as shown in the following figure.
2. In the reset password screen screen, enter the e-mail address during registration, click send verification code, the system sends the reset password link to the specified e-mail address, log in the e-mail, get the verification code, fill in the verification code to the verification screen, click next, enter the reset password screen.

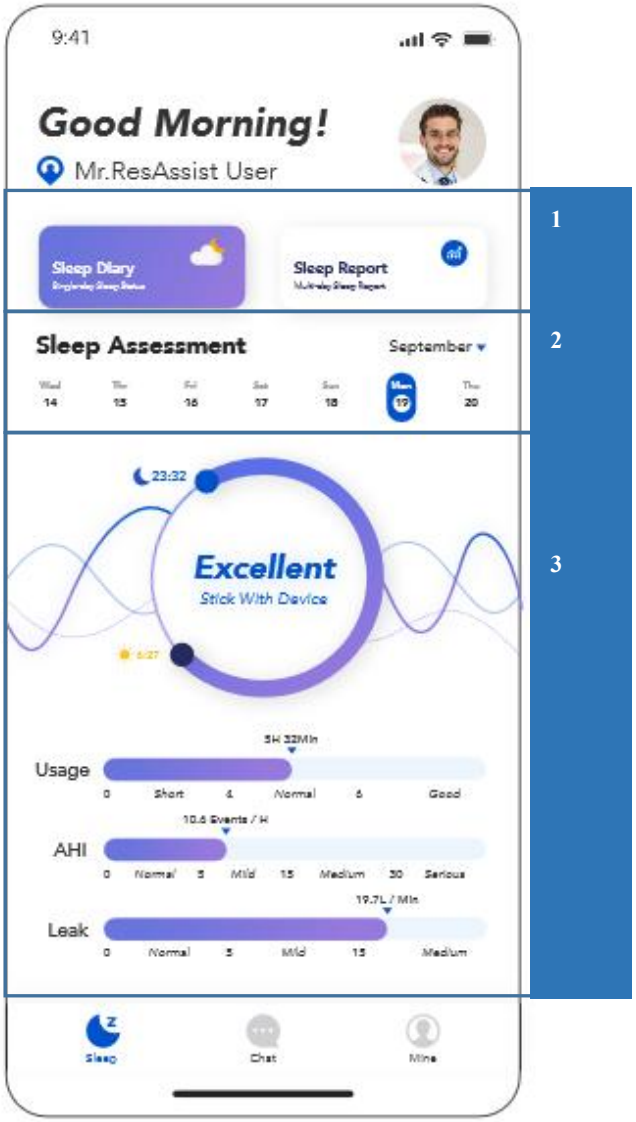


3. Enter the new password twice in the reset password screen, and you can check Show Password to show whether the entered password is correct or not.
4. Click Next to submit the modified password, as shown in the figure below, the modified password is successful, click on the bottom to start using Jump to the login screen.



4.5 Sleep assessment

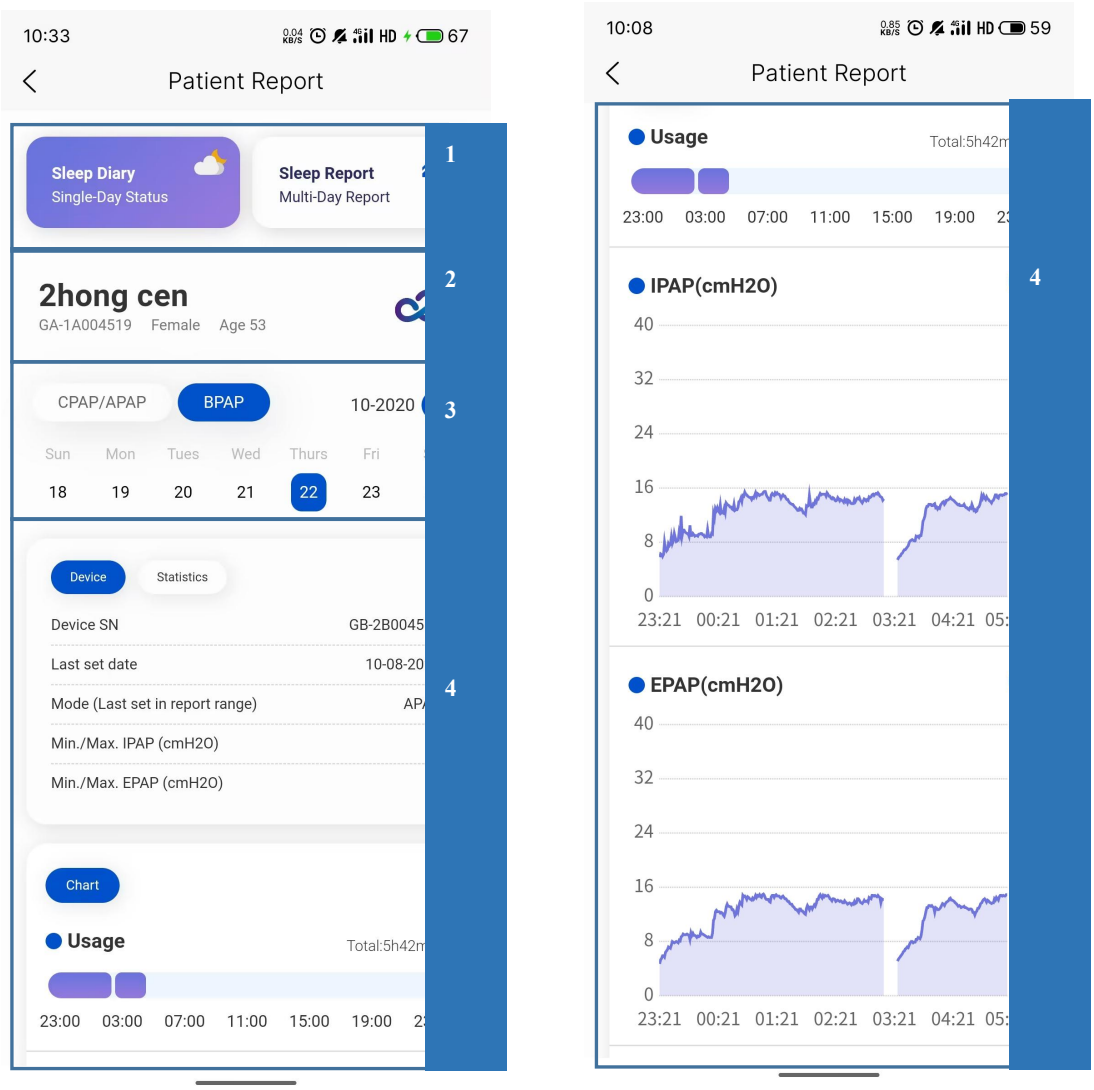
1. After the patient logs in, he/she enters the sleep assessment screen. The sleep assessment screen displays the patient's single-day sleep, including sleep score, usage hours, AHI, Leakage and other indicators. Users can switch the date to view.



No.	Description
1	Operation buttons: Sleep Diary, Sleep Report Entry
2	Date selector
3	Sleep assessment indicators: sleep score, usage hours, AHI, Leakage

4.5.1 Sleep diary

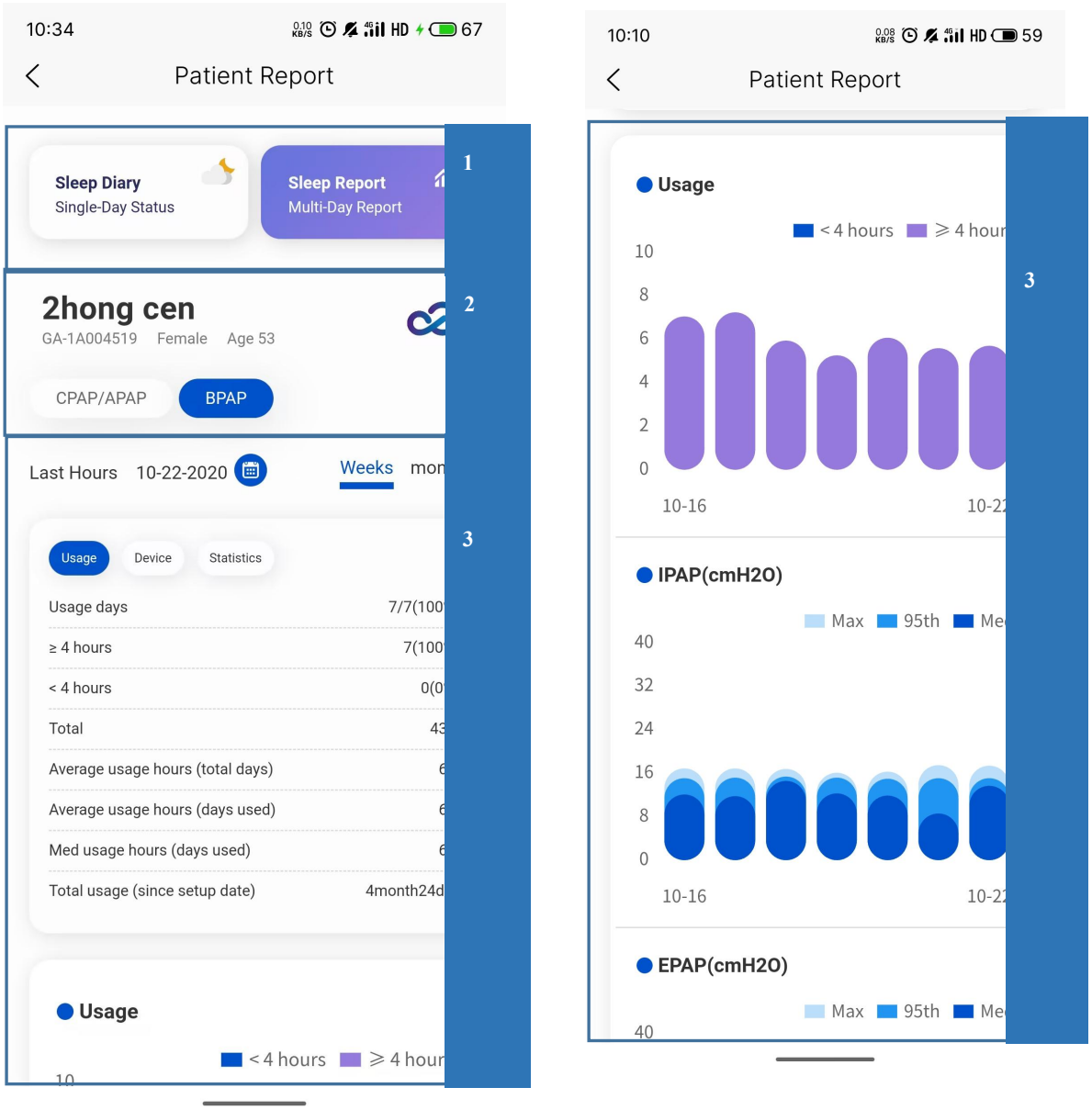
1. Click on the Sleep Diary in Patient Details to view the patient's single day therapy data. After entering the sleep diary, click the sleep report button at the top to switch to the patient's multi-day therapy data for viewing. In the sleep diary, users can switch to CPAP/APAP or BPAP mode to view the corresponding therapy data according to the model respectively. The screen will be fixed with cards to display device information and therapy statistics, and graphs to display the corresponding therapy parameter waveforms. When the selected therapy mode is CPAP/APAP, the screen display is as follows:



No.	Description
1	Operation Buttons: Sleep Report/Sleep Diary Entry
2	Basic patient information
3	Date selector

4.5.2 Sleep report

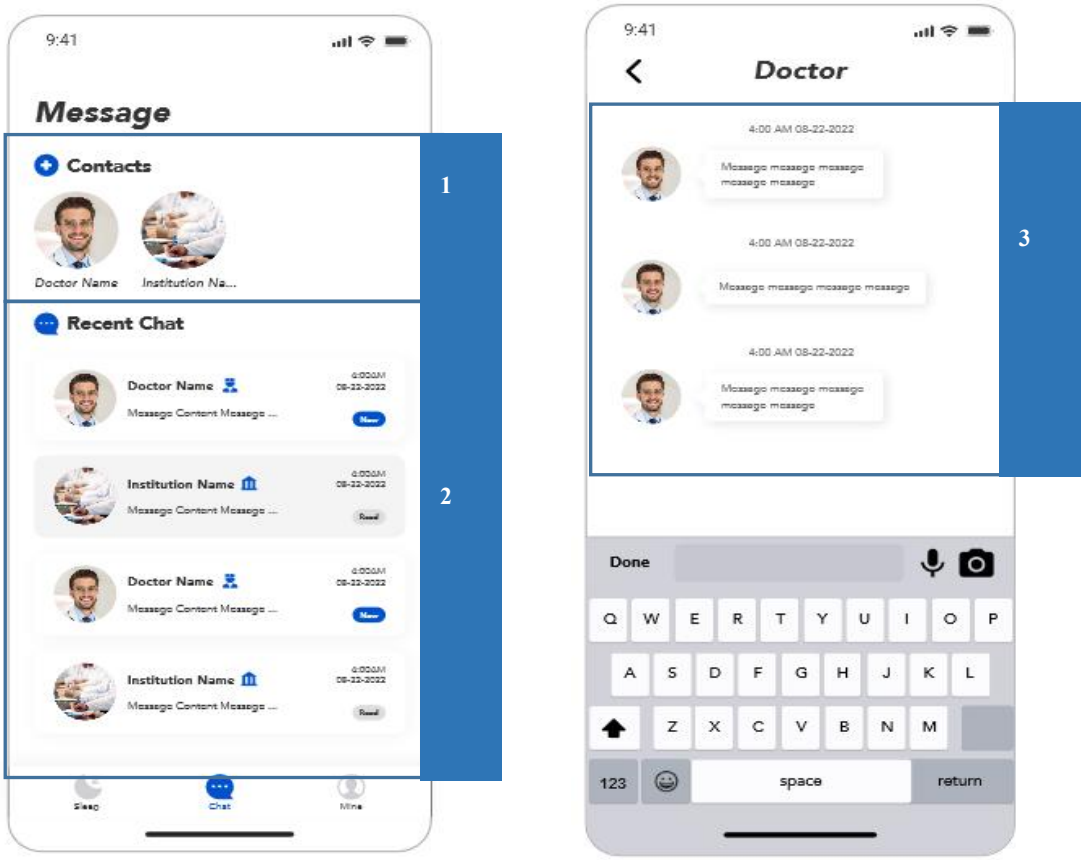
1. Click Sleep Report in Patient Details/Sleep Diary to access the Sleep Report screen. This screen displays the patient's multi-day therapy data. In the sleep report, users can select a fixed period of time and switch CPAP/APAP or BPAP mode to view the corresponding therapy data according to the model. The screen will display the device information and therapy statistics with fixed cards and the corresponding therapy parameter waveforms with graphs. When the selected therapy mode is CPAP/APAP, the screen display is as follows:



No.	Description
1	Operation Buttons: Sleep Report/Sleep Diary Entry
2	Basic patient information
3	usage/device/therapy Statistics

4.6 Message

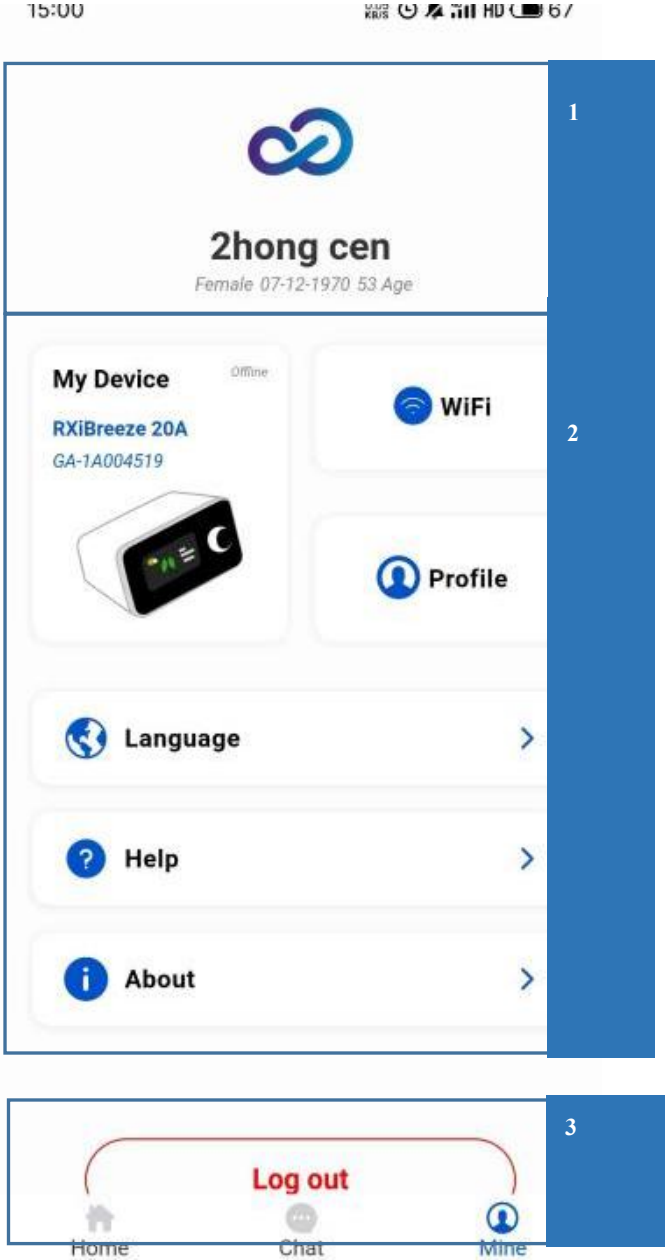
1. Click on chats in the bottom menu module to go to the message list. The message list will show the contacts and history of chats for that user. Click on the contact's avatar or chat history to access the chat window. The user can send a message to the contact in the chat window.



No.	Description
1	Contacts
2	chat History
3	chat Window

4.7 Mine

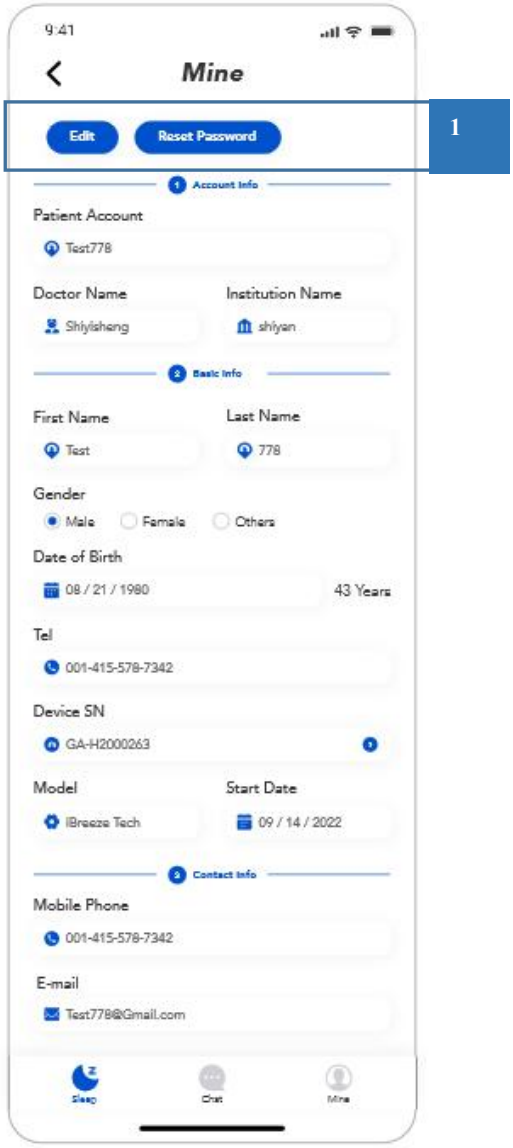
1. Click Mine in the bottom menu module to enter the Mine screen. This screen displays basic patient information and device information items. Click WiFi settings, personal information, help, and about buttons to jump to the corresponding screen to view related contents. Click Exit to exit the current login account.

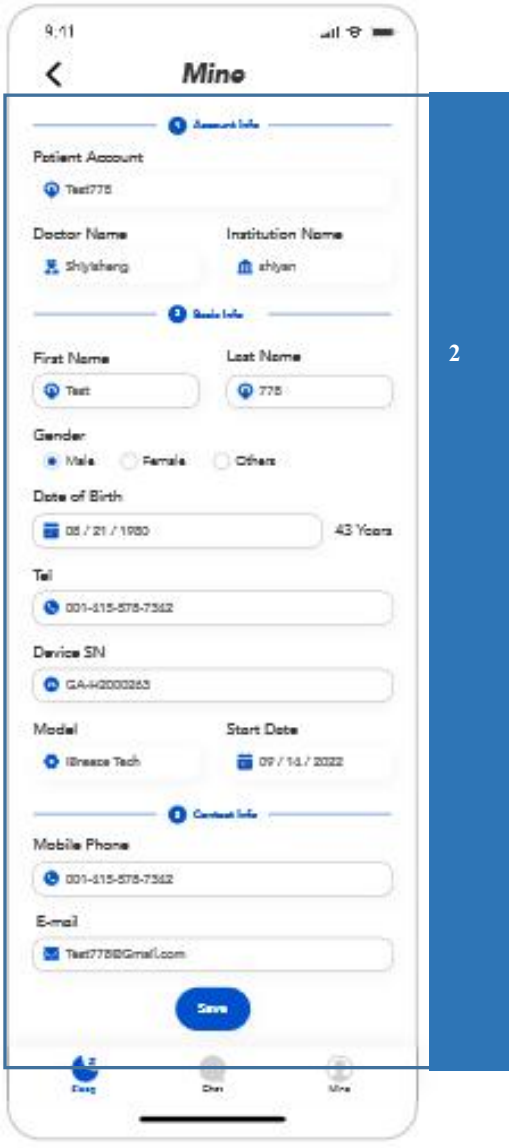


No.	Description
1	Basic patient information: name, gender, date of birth, age
2	Operation buttons: WiFi settings, personal information, help, about portal
3	Action Button: Logout

4.7.1 Personal information

1. Click Personal Information in Mine to enter the patient's personal information screen. Patients can click the Edit button at the top to modify their personal information.

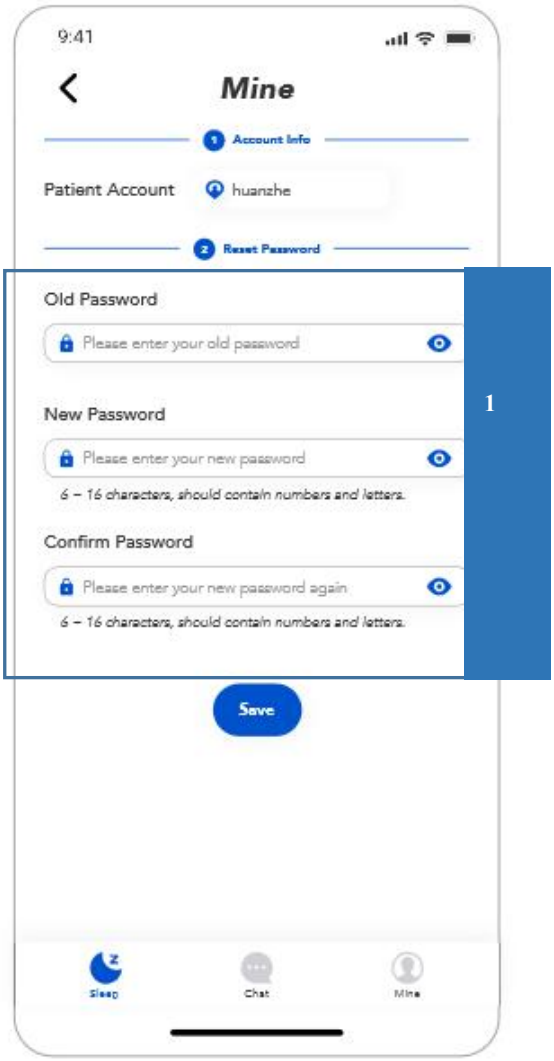




No.	Description
1	Operation buttons: edit, change password
2	Basic patient information: patient account number, doctor's name, institution name, patient's name, gender, date of birth, phone number, device SN, model, start date, cell phone, e-mail address

4.7.2 Change Password

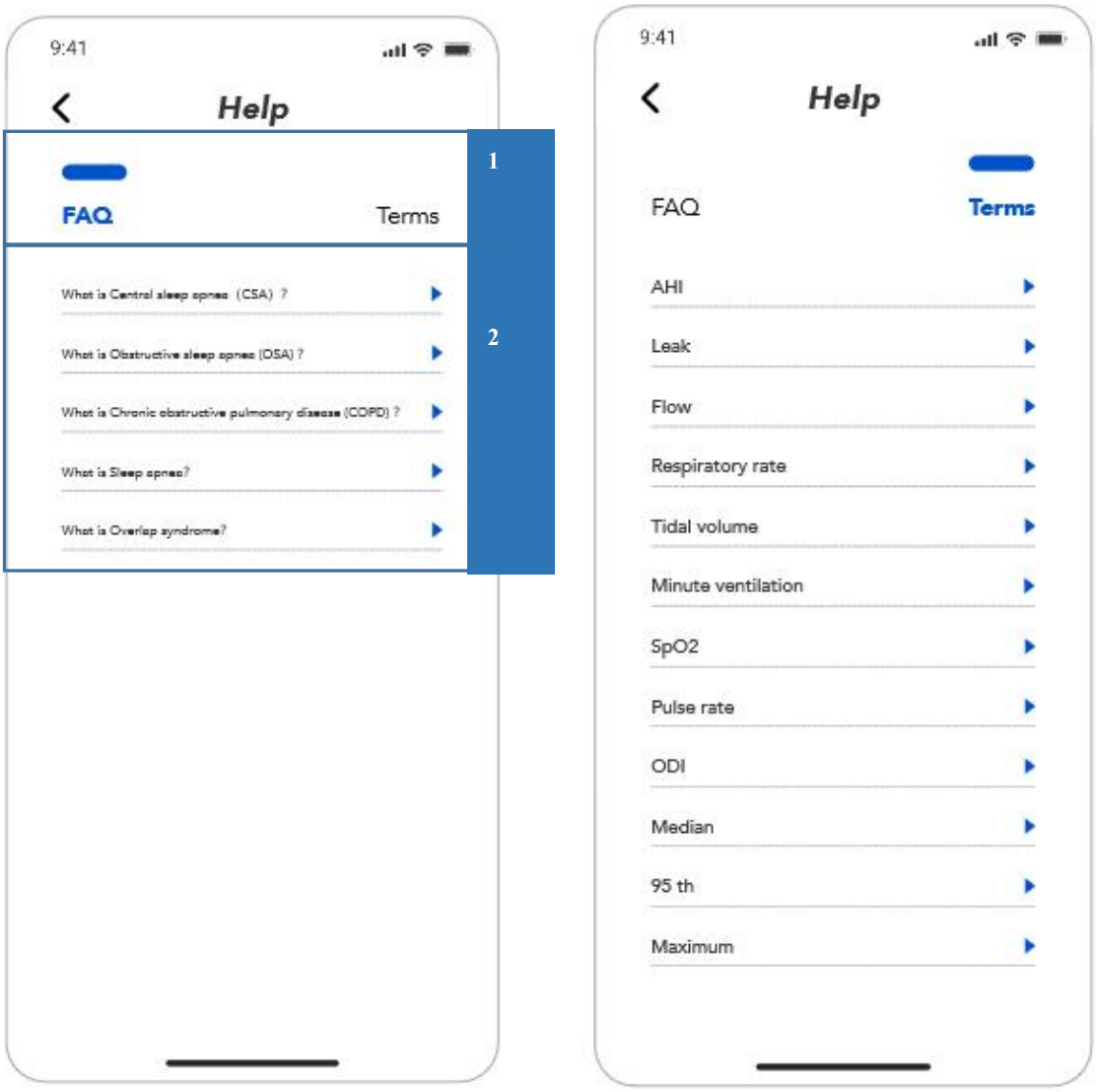
1. Click Change Password in Personal Information to enter the Change Password screen. In this screen, users need to enter the old password, the new password and the confirmation password, and the confirmation password should be the same as the new password. Click Save to complete the password change.



No.	Description
1	Password information: new password, old password, confirmation password

4.7.3 Help

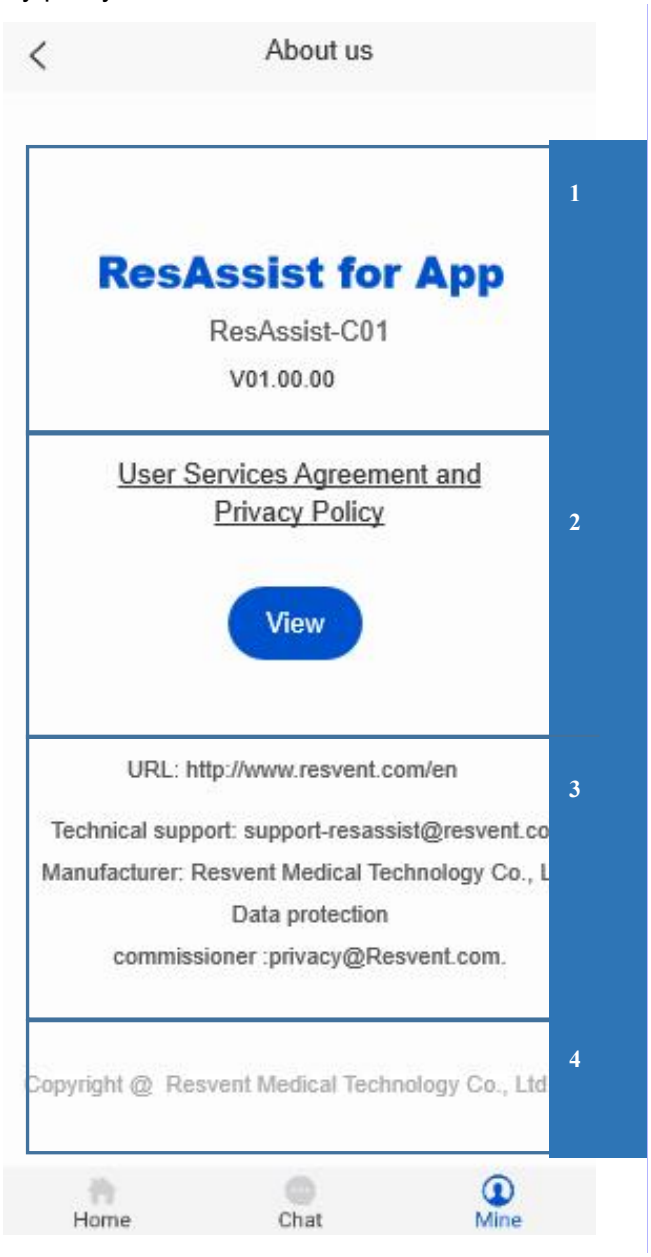
1. Click Help in Mine list to enter the Help Center, which contains: frequently asked questions, explanation of terms.



No.	Description
1	Toggle Button: FAQ, Terminology
2	FAQ details and terminology details

4.7.4 About

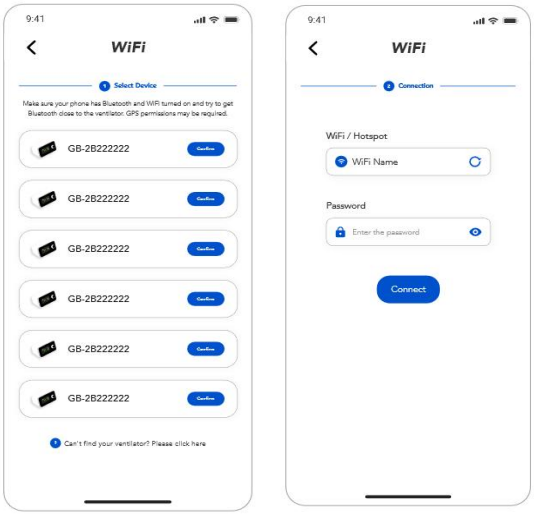
1. Click About in Mine to enter the details screen, which contains: product name, service agreement and privacy policy, contact email, and manufacturer.



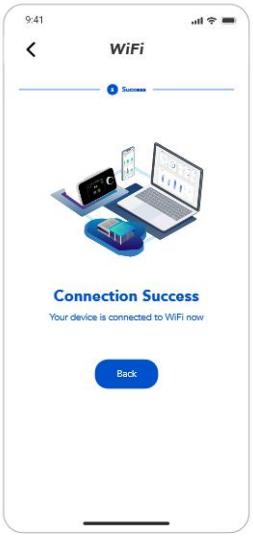
No.	Description
1	Product Name, version
2	Service Agreement and Privacy Policy
3	Contact information: Data Protection Officer, contact number, support e-mail address
4	Manufacturer Name

4.7.5 WiFi Settings

1. When the patient needs to set the WiFi function for the Positive Pressure Ventilation Therapy machine, he/she needs to turn on the WiFi, Bluetooth, and positioning functions of his/her cell phone in advance, keep the cell phone WiFi connection successful, and turn on the WiFi function of the Positive Pressure Ventilation Therapy machine at the same time as shown in the following figure.
2. After confirming that it is on, click WiFi Settings in Mine to enter the WiFi Settings screen.
3. In the WiFi settings screen, search for the device with Bluetooth enabled in the list, click the corresponding device SN number to enter the WiFi account and password settings screen, the default WiFi name of the connected cell phone is obtained, and the patient can also manually enter other WiFi names, enter the correct WiFi password in the password box, and then click Connect to connect to WiFi.



4. When the device successfully connects to WiFi, it enters the following prompt screen.



5 Network Security

5.1 Data backup\recovery process

5.1.1 Data backups

1. Create a cloud database (RDS).
2. set up an automatic backup policy, based on 1 backup per day;
3. Perform full-volume automatic backup of data at 4:00 a.m. local time every day, and increase the backup log;
4. After completing the backup, the system automatically sends a success email for confirmation;
5. complete the data backup.

5.1.2 Data Restoration

1. The ResAssist technical administrator logs in to the AliCloud RDS console through an authorized account.
2. Select the RDS instance to be backed up;
3. Click Backup Recovery and select the point in time to be restored;
4. Perform the backup operation;
5. Complete the business data recovery

Note: Data and recovery of ResAssist software is done by Resvent Technical Services staff, contact email: support-resassist@resvent.com

5.2 Download/update software

For ResAssist software App-side download/update, please refer to Chapter 2 above for details.

5.3 Security configuration and network security event recognition

Note: In order to avoid network attacks when you use this system, making your relevant data subject to security threats, please make the following preparations before using this system, and if you can't solve the problem by yourself when you are subject to network threats during the use process, please contact the distributor or manufacturer in time.

No.	Configuration	Security configuration description
1	patch update	When using your cell phone, it is important to regularly update it with the official security patches released by the cell phone manufacturer.
2	Correct App Installation	Software When App software, be sure to download the installer through official channels. Android system should download the App installer through Google App Market or the trusted App installer provided by the reseller/service provider; IOS system should download the App installer through AppStore.
3	Mobile Antivirus	You need to install commonly used genuine security software on your phone before use, and regularly scan your phone for security.
5	Account/Password Safekeeping	When logging into the ResAssist system, do not save your password in the App.

No.	Configuration	Security configuration description
		Do not tell others about your account/password. If your account is kicked offline during use, please log in and change your password in time to prevent others from obtaining your account/password. When setting your password, please set a complex password, including letters, numbers, symbols and other complex passwords. After using your account, please log out and login your account normally, refer to section 5.7 of this document.
7	Secure Network Connection	Please use the secure network of your company or home to log in this software. Do not connect your cell phone to any unknown network or WiFi to avoid data theft. It is prohibited to install the software on other people's cell phones.
8	Secure Data Use	Cell phones must not be plugged into unsecured computers via USB.
9	Technical Support Email	When receiving any instructions, accounts, passwords, links, etc. about the system that are not sent by e-mail support-resassist@resvent.com, they should not be opened and used freely.

5.4 Log file management

5.4.1 Server logs

Use AWS CloudTrail to provide on-cloud resource log management capabilities , resource logs of all requests, including monitoring the account within the AWS resource logs, security event logs, API call information, you can use the logs for security traceability, to master all the use of the cloud server.

5.4.2 System Log

ResAssist system will save the user login log, operation log, modify the log way to analyze the platform security, the log distributor after logging in to the system can view the respective user managed, device use log.

The logs are stored in the main server, the system will automatically use the logs regularly backed up, data anomalies, log data can be restored in a timely manner.

5.5 Network security materials

No.	Configuration	Security configuration description
1	EC2: Cloud Servers	It is a web service that provides tunable cloud computing capabilities.
2	RDS MineSql:MineSQL	The world's most popular open source relational database, RDS is used to

No.	Configuration	Security configuration description
		easily set up, operate, and scale MineSQL deployments in the cloud, managing time-consuming database administration tasks such as backups, software patching, monitoring, scaling, and replication.
3	Amazon VPC：	A virtual data center on AWS that contains multiple availability zones (AZs).
4	Amazon Route	With the default settings (ACLs are not restricted), subnets are interoperable with each other.
5	Internet Gateway	IGW, the logical egress of the VPC to the Internet, Default VPC contains an IGW.
6	VPN connection	The VPN side connection connects the user's own private network in the physical data center to the VPC, and the routing is private network routing to achieve private network connectivity.
7	Security Group	Equivalent to EC2 instance firewall, an instance can be associated with five security groups, specifying end restrictions on the traffic originating side, inbound and outbound settings.
8	NAT Gateway	Proxying servers within a set of private subnets, all external requests from proxied servers will be sent through the NAT gateway, so that the request IPs seen by the target service are also all IPs of the NAT gateway.
9	Subnet	Subnet segments are divided within the VPC and subnet security is achieved through security control lists (ACLs).
10	Routing Tables	Contains a set of forwarding rules, known as routing entries, that are used to determine the forwarding of traffic. A subnet is associated with a routing table, and a routing table can be associated with more than one subnet. clear determines whether traffic can be forwarded to the Internet gateway (IGW) or VPN network gateway (VGW).

5.6 Product Network Ports

No.	Configuration	Security configuration description
1	User Login	The user logs into the system through the ResAssist App login screen, using the account password and verification code.
2	Setting up WiFi	The user sets the WiFi account and password information of the positive pressure ventilation therapy machine through the App.
3	Modify Personal Information	After logging in, users can enter the Personal Information Center to modify its contents.

5.7 Network security incident handling

No.	Configuration	Security configuration description
1	Leakage of user passwords	The system account is a single sign-on mode, if the user is kicked out by other users in the process, the account password may be Leakageed, in order to ensure the security of user data, you need to log in to the account as soon as possible to change the password.
2	Virus invasion	Can no longer continue to use the system, you need to turn on the
3	System usage is very slow	When accessing the system is very slow or the login screen does not open properly, you need to contact the distributor or manufacturer to feedback the problem.
4	Unusual message received in the system	When you receive an abnormal message in the system message center, you need to contact the dealer or manufacturer to feedback the problem.
5	Abnormal update message appears on the device	When a physician does not advise that configuration parameters need to be changed remotely, contact the distributor or manufacturer for prompt feedback on the problem.

6 Software warnings

Account lockout: When the account password is input incorrectly more than 5 times, the account is automatically locked and the user is warned.

Device Parameter Setting: The screen pops up a warning message when the doctor sends down the device parameters.

Delete warning: When the user deletes the data in the software, the software warning message pops up.

7 Common faults and troubleshooting

As this product is independent software, running on the smartphone system, the use of the voltage should be kept stable, to keep the phone sufficient power, access to the network is stable. Smartphones do not install games and other programs that are not related to this software. Please

log out of your account when you finish using the ResAssist App. If the ResAssist App fails to work, please refer to the following ways to deal with the problem. If you still can't troubleshoot the problem, please stop using it immediately and contact the manufacturer or distributor.

No.	Common Failures	Problem Analysis	Processing
1	Users are unable to reset their passwords	Forgot your registered email address and can't reset your password	You can contact the technical support of the platform to get the account registration email address after providing the login account.
2	Slow access to the system	Patient's access to the network is slow resulting in	Check whether the speed of the network used by the user is normal or not, and switch to a faster network for access.
3	Registration cannot receive verification code	Mail is blocked by spam	When you can't get the email verification code, check whether it is blocked by spam in the email. Make sure the e-mail address is correct. If it is still not possible, you can contact the technical support of the platform.
4	Patient can't bind to device	No devices added that need to be bound	Contact the technical support of the platform to add the SN information of the devices that need to be bound.
		Added devices to bind other patients	You can contact your dealer to determine whether the device is bound to other devices, and if it is bound to other devices, you need to unbind it in time.
5	Device cannot be searched for when device WiFi	Bluetooth, WiFi, location not enabled on the phone	Go into your phone's settings and turn on Bluetooth, WiFi, location and connect WiFi to an available WiFi device.
		Positioning is not authorized for use by ResAssist	Android phones go to settings for authorization Settings->Apps and Services->Privilege Manager->Location->ResAssist->Allow only in use
6	WiFi connection failed	Devices set up for WiFi not entered in the cloud	Contact the dealer to check in the device to confirm whether the device that needs to set up WiFi has been entered, if the device has not been entered, you need to contact the manufacturer to enter the device information before setting up WiFi.
		Device not bound to patient account	Contact the dealer to check in the patient list to confirm whether the device that needs to set up WiFi has been bound to the patient account, if not, you need to bind the patient account before setting up WiFi.

No.	Common Failures	Problem Analysis	Processing
7	Flashing back when launching the software	Cell phone running memory is full	1. Quit the unused software in your phone to free up enough space to run; 2. Uninstall unused software in your phone to ensure that your phone has enough storage space to run ResAssist.
8	Unable to view latest data	The latest therapy data show uploaded to the server.	Check whether the data of the last therapy is saved in the device; If you confirm that the latest data of the device has not been uploaded, please check whether the network is normal. If there is an abnormality in the network, please repair the network connection to upload data to the server normally; If it is not resolved, please contact the dealer/service provider or manufacturer.

8 Terminology

Apnea: an apnea in which the amplitude of the respiratory flow rate is consistently less than 10% of the lower amplitude of the normal respiratory flow rate for a period of more than 10 seconds.
OA (Obstructive Apnea): Obstructive apnea
CA (Central Apnea): Central apnea
AHI (Apnea-Hypopnea Index): The AHI is the number of apneas plus hypoventilation per hour of sleep.
AI (Apnea Index): Apnea index.
HI (Hypopnea Index): Hypopnea index.
CAI (Central Apnea Index): Central apnea index.
OAI (Obstructive Apnea Index): Obstructive apnea index
H (Hypopnea): Hypoventilation, when the patient's respiratory flow rate amplitude is consistently less than 50% of the lower amplitude of the normal respiratory flow rate for more than 10s.
Event: refers to the log entry of the system when apnea or hypoventilation occurs.
Mean: The sum of all data in a set of data divided by the number of data.
Median: The median (also known as the median) refers to a set of data from small to large or from large to small for statistics, each number in order of size, the number in the middle of the queue will be the median.
P95 (95%): the 95th percentile, refers to a group of data from small to large sorting, and calculate the corresponding cumulative percentile, then the 95th percentile of the corresponding data value is called this group of data P95 value.
Duration of use: refers to the time the patient was treated with the positive pressure ventilation therapy machine.
Total use time: The time the patient was treated with the positive-pressure ventilation machine

over a period of time.

Daily use time: refers to the time of using the positive pressure ventilation machine every day, and the system takes 12:00 noon of one day to 12:00 noon of the next day as the use cycle of one day.

Average Daily Use Time: refers to the average time per day that the positive pressure ventilation therapy machine is used over a period of time.

Flow Rate: The rate of airflow for inhalation and exhalation of the patient.

FL (Flow Limitation): Flow limitation, a phenomenon in which the flow rate in the inspiratory portion of the airway begins to flatten out as the upper airway begins to collapse, which is a sign of snoring, hypoventilation, and choking.

Leakage: The amount of air flow due to Leakage through the patient's mouth and mask.

MV: refers to the total amount of gas entering or exiting the lungs per minute.

VT: The volume of air inhaled or exhaled during each calm breath.

PB (Periodic Breathing): Periodic Breathing, an abnormal breathing pattern in which there is a periodic attenuation and intensification of airflow, usually alternating between 30 and 120 seconds.

Pulse Rate: The frequency of arterial beats per minute.

RERA (Respiratory Effort Related Arousals): A respiratory effort related arousal, an arousal caused by the patient's increased effort to breathe, characterized by a gradual decrease in airflow or VT followed by a sudden increase.

Oxygen saturation: the concentration of oxygen in the blood as a percentage of the volume of oxygenated hemoglobin bound by oxygen to the volume of all bindable hemoglobin.

SNI (Snore Index): the snore index, which refers to the systematic measurement of a patient's snoring.

Oxygen Decrease Index (ODI): the number of times when the oxygen content of the blood drops by 4% during sleep.

9 Symbol and explanation

Symbol	Explanation
	Manufacturer.
	Date of Manufacture.
	Country of manufacture:CN(China).
	Model number.
	Batch code.

Symbol	Explanation
MD	Medical device.
UDI	Unique device identifier.
CE 0123	The product bears CE mark indicating its conformity with the Regulation (EU) 2017/745 on medical devices (MDR) and fulfils the GSPR of Annex I of this regulation.
EC REP	European Authorized Representative.
	Software icon.
eIFU Indicator	Consult instructions for use or consult electronic instructions for use.

10 Product Specifications

Lifetime

The lifetime of the software is 15 years.

Note: Your device's Lifetime calculation resets after each software update.

Compatible devices

This software is compatible with the following device models of resvent.

Device name	Positive Airway Pressure System(PAP System)
Device model	iBreeze 20C, iBreeze 20C Pro, iBreeze 20A, iBreeze 20A Pro, iBreeze 25S, iBreeze 25A, iBreeze 25A Pro, iBreeze 25ST, iBreeze 25STA, iBreeze 25STA Pro, iBreeze 30ST, iBreeze 30STA, iBreeze 30STA Pro, iBreezeTech, RXiBreeze 20C Plus, RXiBreeze 20A Plus, RXiBreeze III CPAP, RXiBreeze III CPAP Pro, RXiBreeze III APAP, RXiBreeze III APAP Pro.

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KF-0691-4-050-2.0
Issue date: July 2025

CE 0123