



Feel you, Assist you

AP series Smart Infusion System

Life Support Marketing Dept.



- New Reliable Infusion System: AP series
- Medication Usage Assistant
- Efficiency Boosting Assistant
- Safe Delivery Assistant
- Information Management Assistant
- Conclusion



Part 1

New Reliable Infusion System: AP series

Reliable infusion system: AP series

Workstation

Monitoring System

iCMS
Infusion Central Monitoring System

Infusion pump

Syringe pump



Integrated base

AP-30 series syringe pump

7.0-inch

Capacitive touch screen

$\leq 1.7\%$

infusion accuracy

0.01ml/h

Start rate

2500ml/h

Maximum infusion rate

16 level

Occlusion 50-1200mmHg



AP-60 series infusion pump

7.0-inch

Capacitive touch screen

$\leq 4.4\%$

infusion accuracy

10 μ l

Air bubble alarm accuracy

2500ml/h

Maximum infusion rate

16 level

Occlusion 50-1200mmHg



Highly integrated for transfer

73mm

AP-60 series infusion

73.5mm

AP-30 series syringe pump



1.7kg
Weight

integration
Built-in handle design

New infusion system: AP series

Breakthrough Specifications

Classification

IP44
(infusion pump/Syringe
pump/infusion workstation)

Battery life

AP-60:15h@25ml/h
AP-30:15h@5ml/h
AP-80:15h

History record

At least 10,000 records and logs

Number of
channels

4 channel
up to: 16+16



Register product model

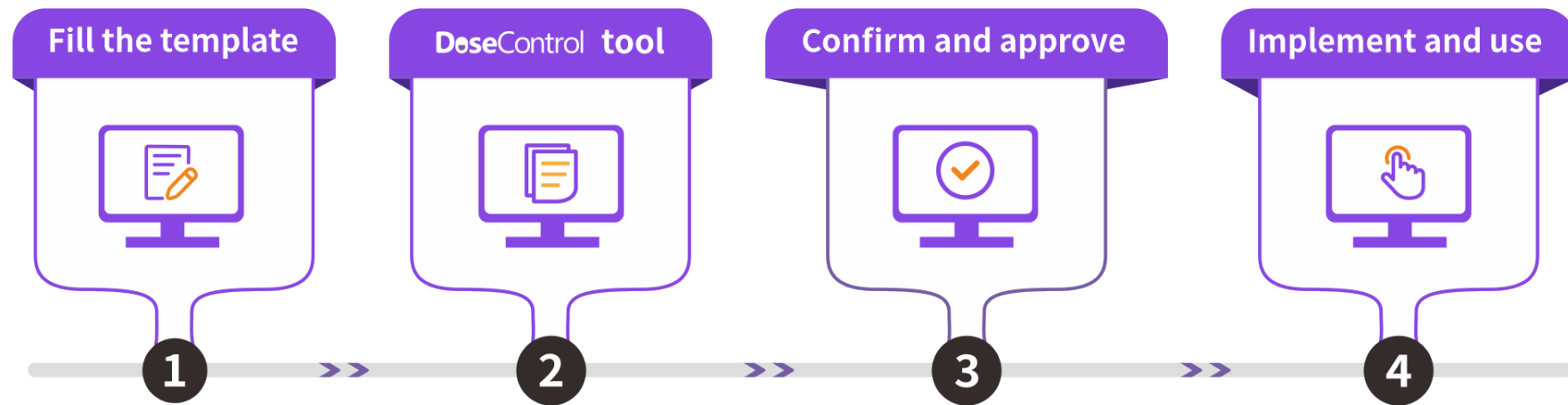
AP series	Model	Notes
Infusion pump	AP-60, AP-60T, AP-60 PRO, AP-60C, AP-60C PRO	<i>AP-60&AP-60 PRO (for open system)</i> <i>AP-60 T</i> <i>AP-60C&AP-60C PRO (for closed system)</i>
Syringe pump	AP-30, AP-30 PRO	
Workstation	AP-80, AP-80 PRO	



Part 2

Medication Usage Assistant

DoseControl – New Feature

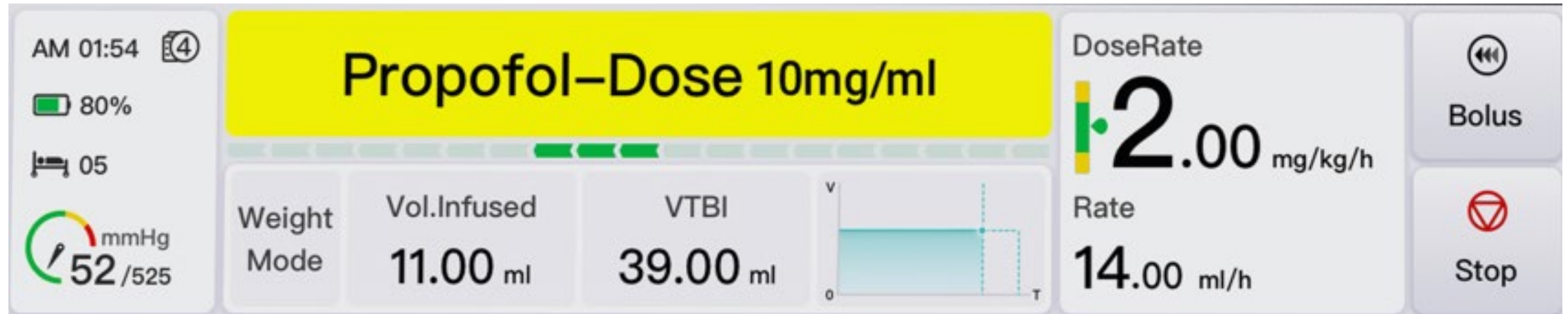


Simple process to a professional solution

Improvements:

- Support up to 40 profiles (Care areas)
- Support up to 12000 different drugs
- Support up to 100 types of drug tag.

DoseControl – New Feature



Improvement in drug selection:

- Now search based on the drug type is available
- Provide a list of common-used drug list
- For some special cases, drug Incompatibility can be recorded and show as a tips.

Drug Management

Rate Mode > | Remifentanil >

Flow Rate

5.00 ml/h

VTBI

10.00 ml

= Time

02:00:00

Back

Start

10:13

88%

4.35/8.70

psi

Remifentanil

Rate Mode

10

20

30

40

50

B.Braun Omnifix 50 ml

Flow Rate

5

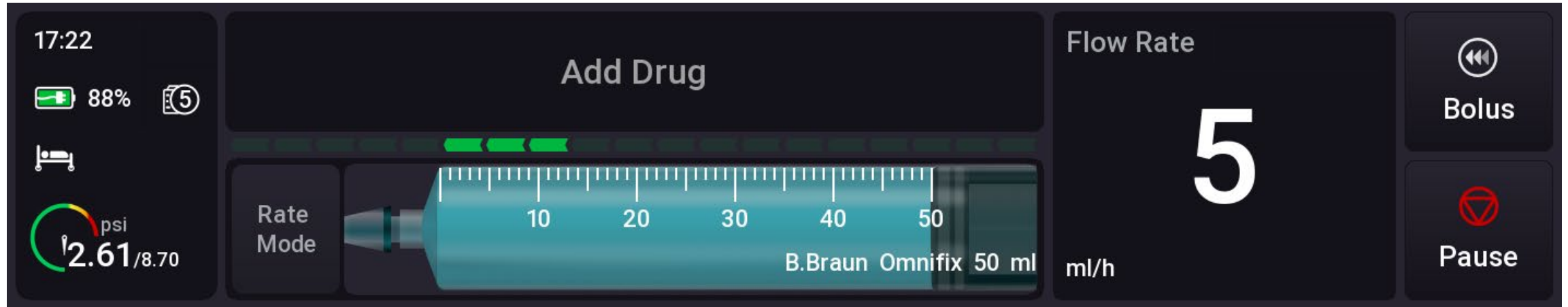
ml/h

Bolus

Pause

Now provide “pure” drug list with multiple methods to add drugs.

Virtual View

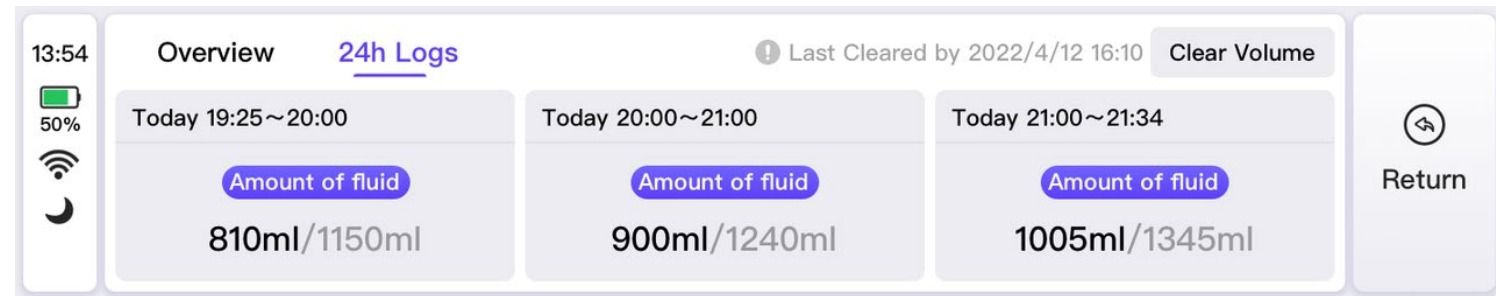
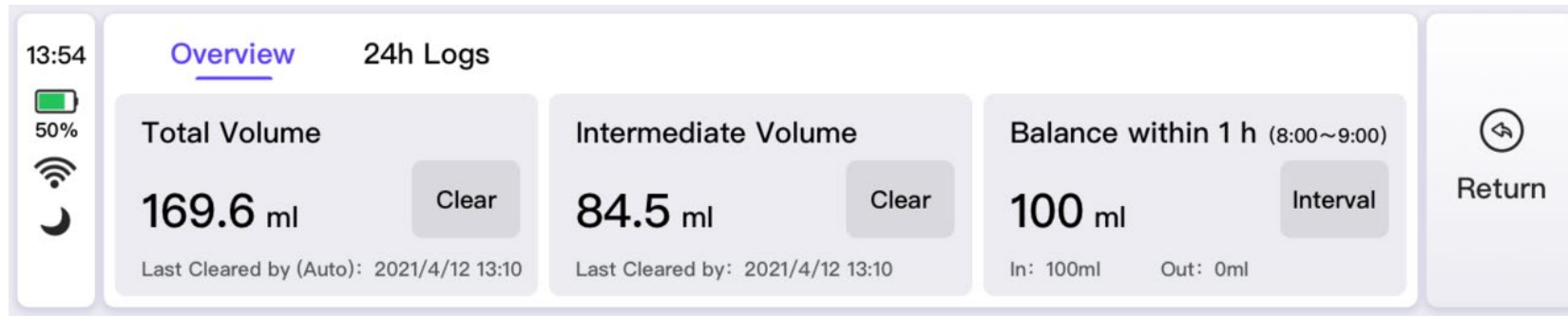


Simulated syringe display, to accurately indicate the real syringe status,

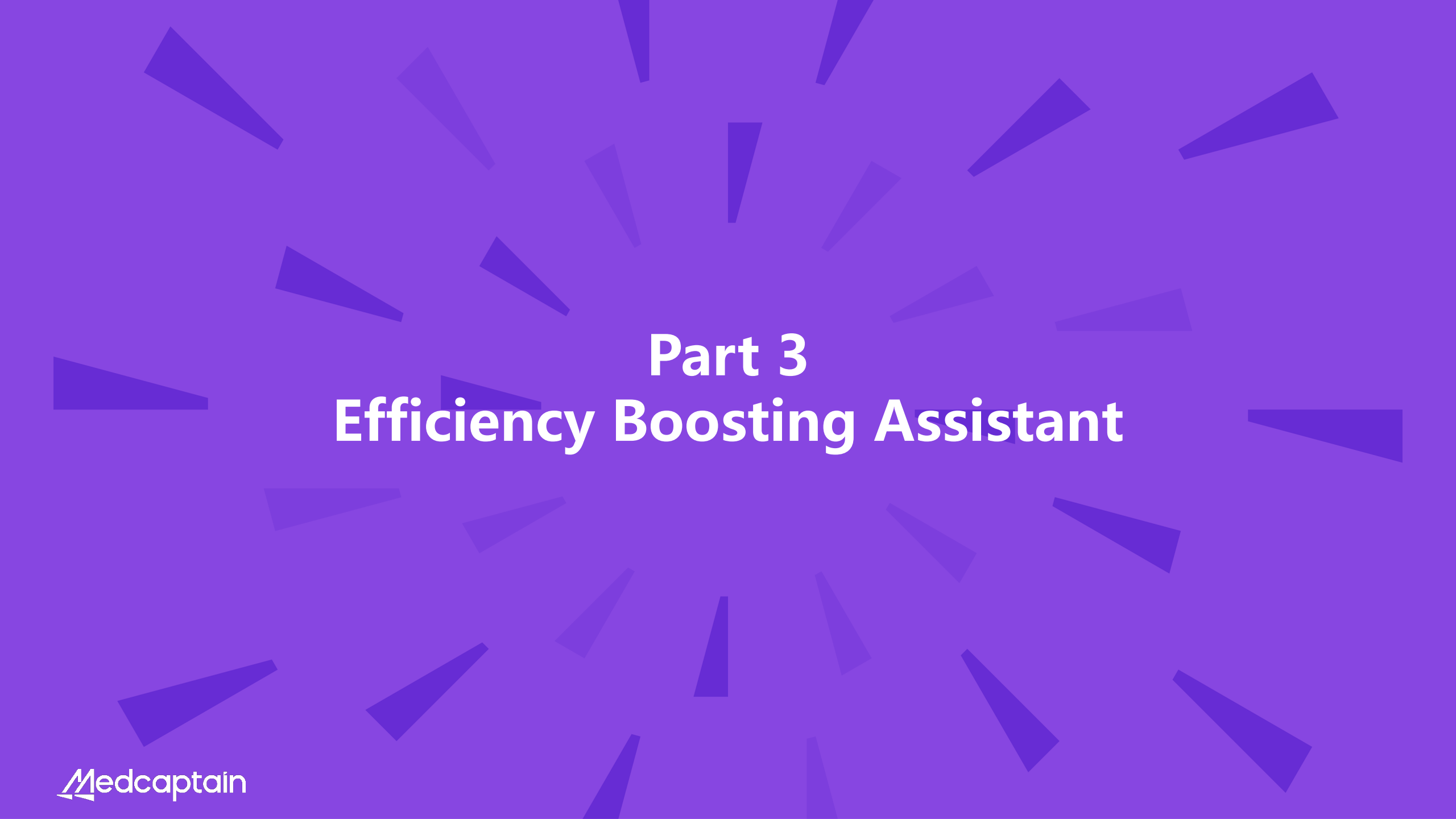
Including both fluid and brand.

Display accuracy tolerance $\leq \pm 0.5\text{ml}$

Volume Record & Fluid log



- Patient & infusion based data, no need to do extra calculation.
- Overview or hourly record, greatly strengthen fluid management.
- Operation friendly, 3-4 steps to view all the info you need without password.



Part 3

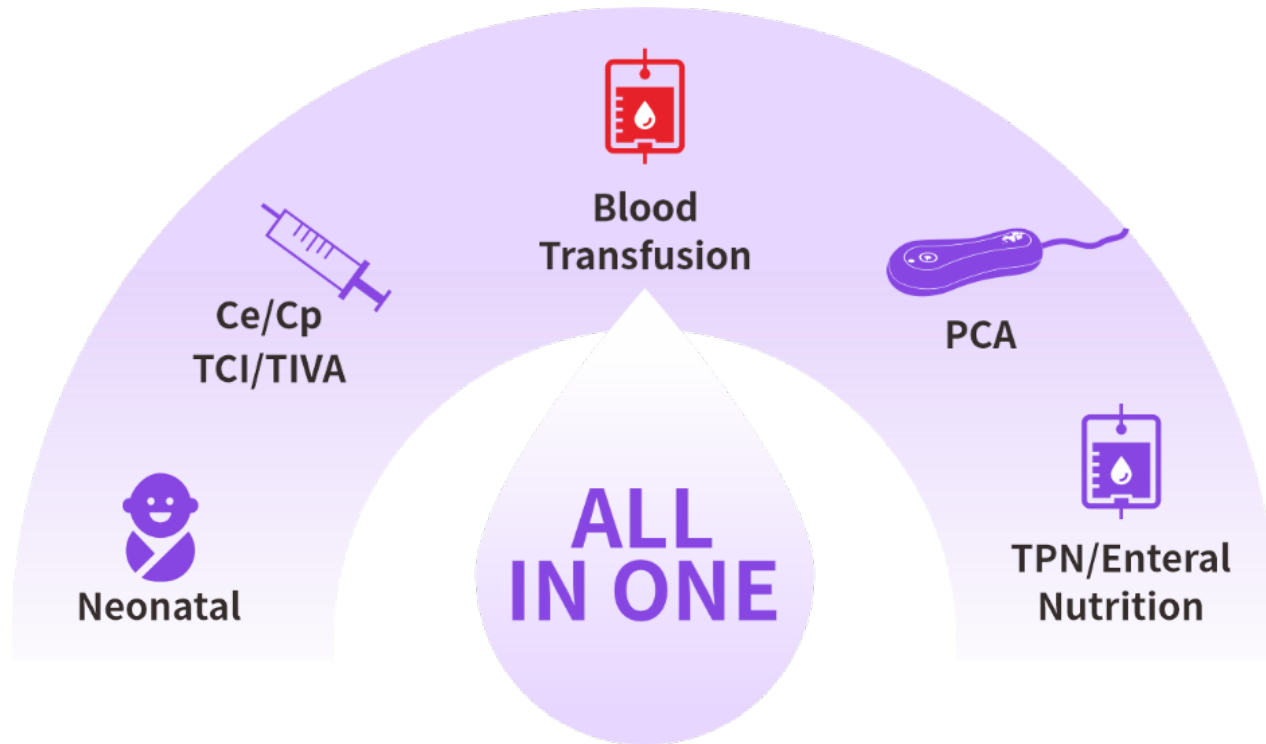
Efficiency Boosting Assistant

7.0 inch touch screen



- Custom parameter display;
- The largest drug label over the world

All in one



- Wide applicable people
- All above function in one pump
- Available in both 30 series and 60 series



Infusion Modes

	Syringe Pump		Infusion Pump				
	AP-30	AP-30 PRO	AP-60	AP-60 PRO	AP-60C	AP-60C PRO	AP-60T
Rate Mode	√	√	√	√	√	√	√
Weight Mode	√	√	√	√	√	√	√
Time Mode	√	√	√	√	√	√	√
Micro Mode	√	√	√	√	√	√	√
Sequence Mode	√	√	√	√	√	√	√
Loading Dose Mode	√	√	√	√	√	√	√
Trapezia Mode	√	√	√	√	√	√	√
Intermittent Mode	√	√	√	√	√	√	√
Chronological Mode	√	√	√	√	√	√	√
Combination Mode	O	√	O	√	√	√	X
Drip Mode	X	X	√	√	√	√	√
PCA Mode	O	O	O	O	O	O	O
PCEA Mode	O	O	O	O	O	O	O
PIEB Mode	O	O	O	O	O	O	O
TIVA Mode	O	O	√	√	√	√	√
TCI Mode	O	O	O	O	O	O	O
PCS Mode	O	O	O	O	O	O	O
Feed Mode	O	O	O	O	O	O	O
Piggyback Mode	X	X	O	O	O	O	O

Mode list (√ —support X —not support O —optional)

Chronological Mode

Chrono. Mode > | Add Drug > | 0.100mg/ml > | 67.00kg > | Cycle ☐ OFF

Total VTBI
33.50 ml

1/1 Time segment **ND** Dose Rate Flow Rate
07:30 ~ 08:30 0.050 mg/kg/h 33.50 ml/h

Add Delete

Back Start

- Chronological Mode provides infusion therapy based on **human periodic rhythm** and **chrono-pharmacology**, which is very similar to "Sequence Mode with alarm control "
- Studies have shown that in the human body, **pathological processes** and the **body's response to drugs** are **rhythmical in time**. Medication time is different, after giving the same dose of the drug, its effect is very different.

Combination Mode

Combin. Mode > | Add Drug > | Dose Calc. >

1/1

Target flow rate	VTBI	Infusion Time
0.00 ml/h	-- ml	--:--:--


Trapezia


Add


Delete

Cycle ☐ OFF


Back


Start

Learn one, learn more: steps to finish the setting:

- Select a section
- **Switch the section behavior you want (continuous or ramping/tapering)**
- Continuous section – similar operation as Sequence mode (Rate, VTBI, time)
- Ramping/Tapering section – input the end point rate of the section, then VTBI and time
- Turn to next section or start infusion

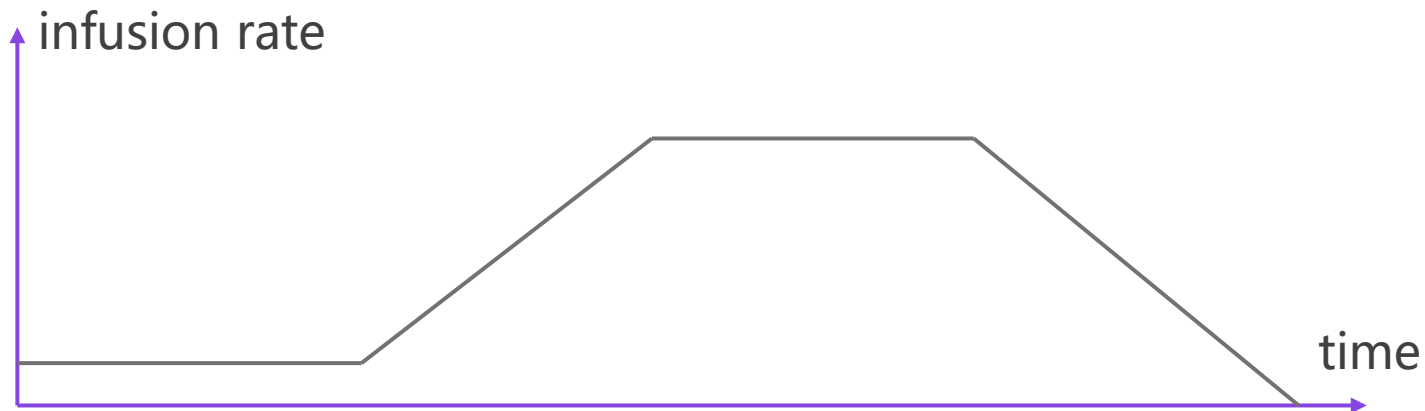


The Clinical

Nitroglycerin

Nitroglycerin iv, start with 5-10ug/min, increase by 5-10ug/min every 5-10minites, the maximum dose is 200ug/min, until the patient's heart failure symptoms are relieved or the systolic blood pressure drops to about 100 mmHg, the dose is gradually reduced.

Parameters setting: start with rate mode, then setting trapezia mode, rise the infusion rate, maintain it and decrease in speed.



Need mode: Rate mode+Trapezia mode

Only combination mode can implement such an application



Part 4

Safe Delivery Assistant

Audio visual alarm

- 270° three-sided surround alarm light, clear and intuitive alarm audio and visual display
- Automatically resume infusion after the obstruction is eliminated
- Infusion set damage detection and empty bottle detection



Full-range syringe compatibility

Applicable to 1ml, 2ml, 3ml, 5ml, 10ml, 20ml, 30ml, 50ml, 60ml syringes when great accuracy meet prominent precision

No.	Syringe Size	Rate Range
1	1ml	0.01 - 50.00ml/h
2	2ml, 3ml	0.01 - 150.0ml/h
3	5ml	0.01 - 300.0ml/h
4	10/12ml	0.10 - 800.0ml/h
5	20ml	0.10 - 1200ml/h
6	30ml	0.10 - 1800ml/h
7	50/60ml	0.10 - 2500ml/h

Increment:

0.01ml/h when the infusion rate is 0.01 - 99.99 ml/h;

0.1ml/h when the infusion rate is 100.0 - 999.9ml/h;

1ml/h when the infusion rate is 1000 - 2500ml/h.

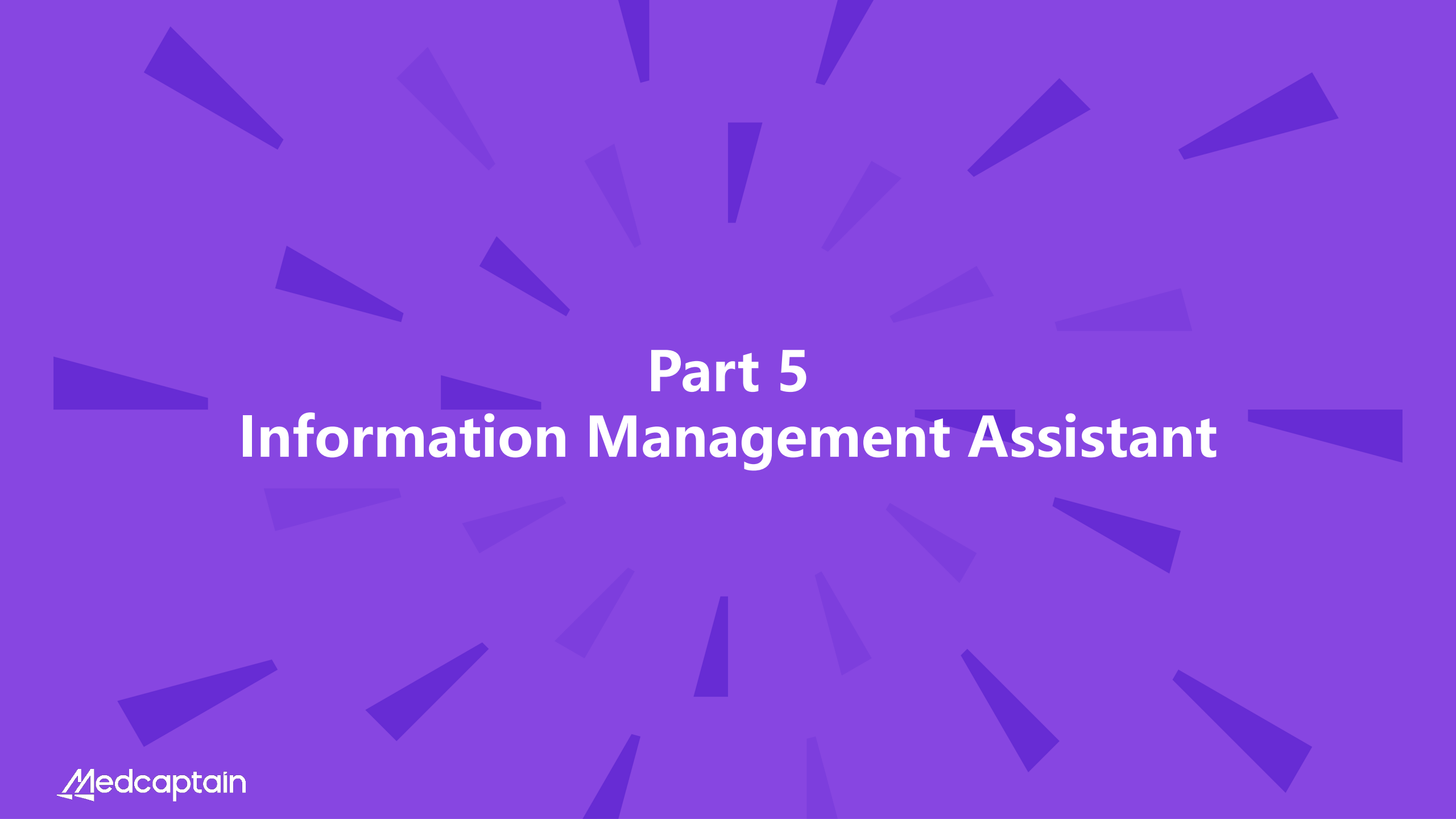
Ingress Protection by IP44

Adapt to the needs of clinical use in various environments

Supports up to 50 disinfectants

No.	Product Name	Product Type
1	75% Alcohol Wipes	Wipes
2	84 disinfectant	Liquid
3	AIERSHI Chlorine Disinfectant	Tablets
4	Air spray of Health Essence brand Disinfectant	Liquid, spray
5	ANTIFLU Disinfectant	Liquid
6	Benzalkonium bromide disinfectant solution	Liquid
7	Benzalkonium chloride, 44%	Liquid
8	Chlorhexidine disinfectant solution, 0.2%	Liquid
9	Chlorhexidine gluconate solution, 0.2%	Liquid
10	Clinell Peracetic Acid Wipes	Wipes
11	Clinell® Disinfection Wipes	Wipes
12	Clinell® Universal Wipes	Wipes
13	DIAN'ERKANG Surface Wipes	Wipes
14	DIAN'ERKANG Disinfectant Spray	Liquid, spray
15	DIAN'ERKANG Surface Disinfectant	Liquid
16	Didecyl Dimethyl Ammonium Chloride	Liquid
17	Ecolab Incidin	Wipes
18	Ethanol, 75%	Liquid
19	Gelica® Quaternary Ammonium Salt Disinfectant, 0.2%	Liquid
20	Health Essence Effervescent Tablets	Tablets
21	Hydrogen peroxide, 3%	Liquid
22	Hypochlorous acid disinfectant	Liquid
23	Isopropanol, 70%	Liquid
24	JIEXIANG Disinfectant Tablets	Tablets
25	Jifro Hand Antiseptic Rinse Free Gel	Gel

No.	Product Name	Product Type
26	LION Full-Plant Hand Sanitizer	Foam
27	LION Hand Sanitizer Foam	Foam
28	LIRCON® 50% Citric Acid for Hemodialysis Analyzers	Liquid
29	LIRCON® Compound Quaternary Ammonium Salt Disinfectant	Liquid
30	LIRCON® Dedicated Hand Disinfectant	Liquid
31	LIRCON® Hand Disinfectant	Liquid
32	LIRCON® Single-use Medical Disinfection Wipes	Wipes
33	LIRCON® Single-use Medical Disinfection Wet Wipes	Wipes
34	Meterx Disinfectant Solution	Liquid
35	Meterx Surface Disinfectant Wipes	Wipes
36	Oxivir Excel Wipe CE	Wipes
37	oxivir tb doekjes	Liquid, spray
38	PDI Sani-hands Wipes	Wipes
39	Porly Kholum Antiseptic Rinse Free Hand Sanitizer	Liquid
40	Porly Kholum Surface Disinfectant	Liquid, spray
41	Pure ethanol	Liquid
42	SAIREN Rinse Free Hand Sanitizer	Liquid
43	SHUILISHENG potassium hydrogen peroxymonosulfate disinfectant powder	Powder
44	Sodium hypochlorite solution, 0.1%	Liquid
45	SunBerry Rinse Free Hand Disinfectant	Liquid
46	Swashes Disinfectant Solution	Liquid
47	Tristel Duo	Liquid, spray
48	Tristel Fuse for surfaces	Liquid
49	Tristel Jet	Liquid, spray
50	XIAOSHAWEI Disinfectant Tablets Dedicated for Swimming Pools	Tablets



Part 5

Information Management Assistant

Information interconnection

A variety of connection methods
A variety of clinical applications



Remote Control Screen

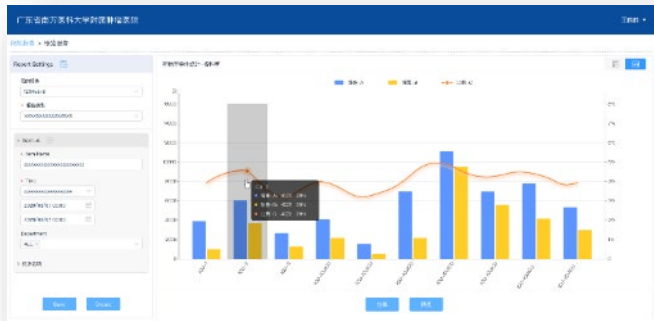
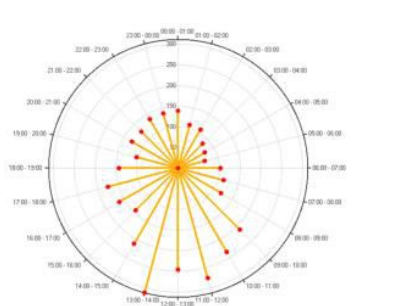
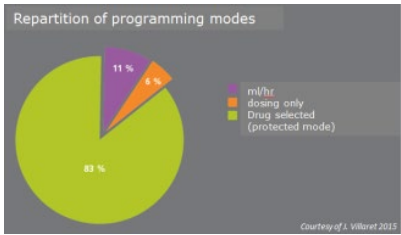
12.8 inch



21.5 inch



DoseControl & CQI



CQI report

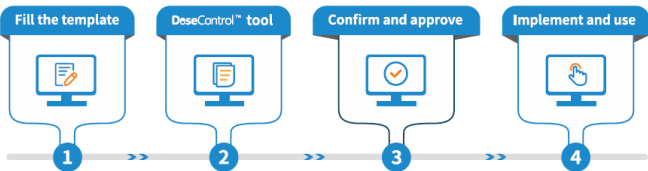
Improve

iCMS-
DoseControl

Protect

Evaluation

DoseControl



Simple process to a professional solution



DoseControl

Standard for secure communications



UL2900 is a cybersecurity standard for network-connectable products that helps secure the Internet of Things (IoT), especially those related to functional safety.

Developed under the UL2900 specification for medical devices, the AP system is a pioneering first step in infusion information security.

Conclusion

Features

Medication Usage Assistant:

DoseControl, Fluid Statistics, Virtual View

Efficiency Boosting Assistant:

Customize display with 7.0 inch touch screen, all in one, multiple TCI model, Combination mode

Safe Delivery Assistant:

Audio visual alarm, Full-range syringe compatibility, IP44 protection, 50 disinfectants

Information Management Assistant:

Information interconnection, Remote Control Screen, DoseControl & CQI, Standard for secure communications

Specifications

Item	Medcaptain AP-60 series infusion pump
Dimensions (W*H*D)	215 mm × 73 mm × 150 mm (support foot included) 215 mm × 61 mm × 150 mm (support foot excluded)
Weight	about 1.7 kg
Capacitive Touchscreen	7.0-inch, resolution of 280 × 1424 pixels
Classification	IP44
Infusion Rate	0.1~2500 ml/h
Air Bubble	Single Bubble: 15, 50, 100, 200, 300, 500, and 800 (μl) Total Bubbles: 100, 200, 400, 500, 600, 800, 1000 and (μl/15min)
Alarm accuracy	Alarm accuracy: ≤10μl or ±20% (whichever is greater)
Patient-side OCCL	16 patient-side occlusion levels, 50~1200mmHg,
Battery life	15h@25ml/h
Wise battery pack	support
Infusion mode	19
Infusion accuracy	≤±4.4%

Specifications

Item	Medcaptain AP-30 series syringe pump
Dimensions (W*H*D)	270 mm × 73.5 mm × 150 mm
Weight	about 1.7 kg
Capacitive Touchscreen	7.0-inch, resolution of 236 × 960 pixels
Classification	IP44
Infusion Rate	0.1~2500 ml/h
Syringe install method	automated holder for safe loading
Syringe	1ml/2ml/3ml/5ml/6ml/10ml/20ml/30ml/50ml/60ml
Patient-side OCCL	16 patient-side occlusion levels,50~1200mmHg,
Battery life	15h@25ml/h
Wise battery pack	support
Infusion mode	17
Infusion accuracy	≤±1.7%

Recomended Configuration

ICU

Model	Configuration
AP-80	WiFi, integrated base
AP-30	DoseControl
AP-60	DoseControl
iCMS	CQI

8 channel workstation

OR

Model	Configuration
AP-80	WiFi, integrated base
AP-30	DoseControl Eleveld
AP-60	DoseControl

4-8 channel TCI workstation

Emergency

Model	Configuration
AP-80	WiFi
AP-30	DoseControl
AP-60	DoseControl

4 channel workstation

Neonatology

Model	Configuration
AP-80	WiFi, integrated base
AP-30	DoseControl
iCMS	CQI

4 channel workstation



Medcaptain 麦科田



THANK YOU

