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bringing technology to life

CADD®-Solis Ambulatory Infusion System
Designed to help you connect

INFUSION MANAGEMENT

CADD™

CADD™

The CADD®-Solis Ambulatory Infusion System

Patient safety is the priority for all healthcare organisations. As the impact of medication errors becomes more widely catalogued and better understood, the importance of reducing these errors and improving patient safety increases significantly.

Studies show the risk of harm from medication errors

- Studies have suggested that up to 9% of all patients staying in hospital experience medication related harm. Many of these incidents are preventable.[1]
- A hospital patient can expect, on average, to be subjected to more than one medication error each day.[2]
- The National Patient Safety Agency estimate that preventable harm from medicines could cost more than £750 million each year in England.[1]
- A recent study found 47% of adverse events involved medications, and wrong dosages were among the most common errors.[3]

[1] Safety in doses: medication safety incidents in the NHS, NPSA, 2007
[2] Preventing Medication Errors, IOM, 2006
[3] Rothschild J.M., Keohane, C.A., Cook, E.F. et al.
A controlled trial of smart infusion pumps to improve medication safety in critically ill patients. Critical Care Magazine, [2005] 33 (3), 533-540, 679

Summary of recognised standards for error-reduction features in pain pumps*	CADD®-Solis included features
Initial programming	✓
Dose limits	✓
Indication of overridden limit	✓
Configure protocol library to current practices	✓
Simple to operate	✓
Display protocol/drug name at all times	✓
Track limit overrides and programming changes	✓
Provide facility-based support with implementation of advanced safety features	✓

*Health Devices, January 2006, Volume 35, Number 1 This information is for illustrative purposes only – ECRI has not evaluated the CADD®-Solis ambulatory infusion system

Versatile Pain Management System

The CADD®-Solis Ambulatory Infusion System combines advanced medication error reduction features with ease of use to provide an intuitive, state-of-the-art pain management system. The compact lightweight design helps promote patient mobility and improved outcomes, while the flexible programming options make this a truly versatile pump for all your pain management infusions.

- Compact, lightweight design
- Large, PDA-style colour graphic display
- Advanced medication error reduction features
- Cell phone like user interface with familiar CADD® Pump scroll keys
- Intuitive, task-orientated software
- Flexible platform to grow with evolving clinical and technological needs
- Wide variety of administration sets, including exclusive CADD® Medication Cassette Reservoirs

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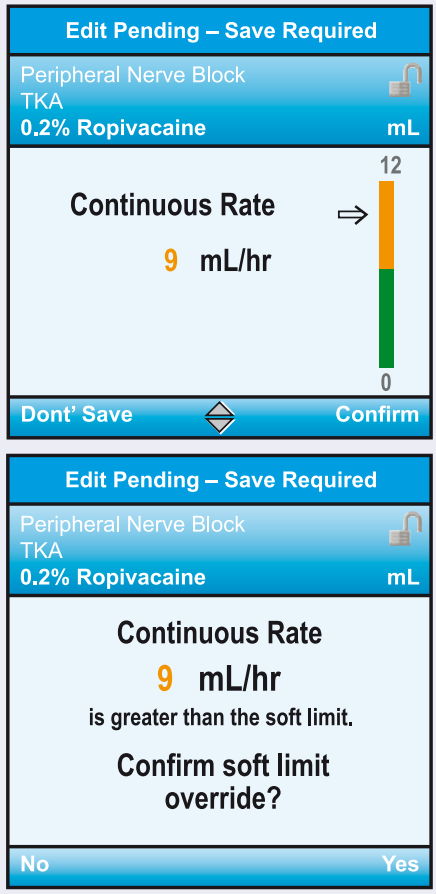
CADD®-Solis:
Providing advanced patient safety

The CADD®-Solis Ambulatory Infusion System has been designed to meet industry recognised standards for advanced error reduction features in pain pumps. CADD®-Solis Medication Safety Software allows you to define specific protocol libraries that reflect your own clinical practices. The on-board library holds up to 500 protocols, allowing CADD®-Solis to grow with your needs.

CADD®-Solis provides secure access, allowing the option to designate authorised users with different levels of security access. The scroll keypad prevents entering values outside of defined programme limits and eliminates keypad bounce errors.

User defined hard and soft limits with visual alerts provide flexibility and added safety.

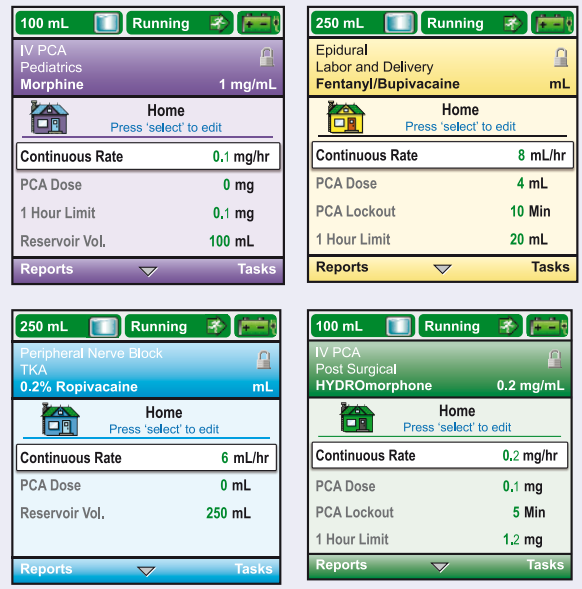


CADD®-Solis:
Versatile to meet your needs

CADD® Solis is a highly versatile multi therapy infusion system that can support all your pain management medication delivery needs. The compact lightweight design promotes patient mobility; associated with improved clinical outcomes, reduced length of stay, and reduced treatment costs. Indications for use include IV PCA, subcutaneous, epidurals, nerve blocks, surgical site infusion therapies.

Staff need only learn one pain management medication delivery system for use in all departments requiring pain management infusions.

Colour screens allow you to differentiate protocols according to your own clinical preferences.

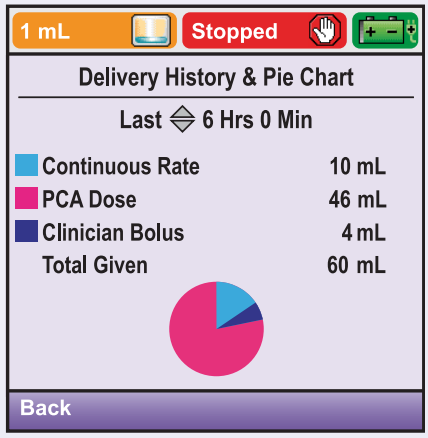


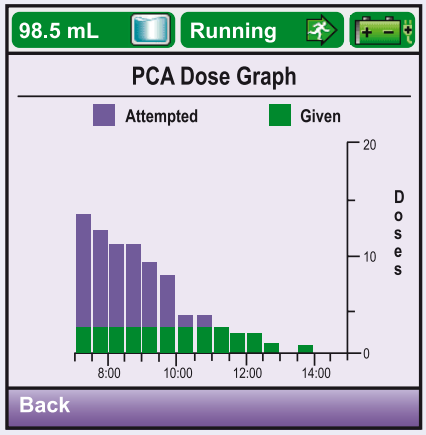
CADD®-Solis: Easy to Use

The simple menu structure and soft key interface makes programming and navigating the CADD®-Solis pump intuitive and easy.

Strikingly clear screen displays therapy, qualifier, drug, delivery settings and status. Colour indicators of protocol, pump operating status and alarms/alerts provide easy bedside identification for nurses and clinicians.

On-screen graphs, trend reports and user audit trail allow immediate patient assessment, promoting patient centred care and continuous quality improvement processes.





CADD®-Solis: Medication Delivery Options

The CADD®-Solis Ambulatory Infusion System offers a wide selection of exclusive CADD® Medication Cassettes, Administration and Extension sets to meet all your medication delivery needs.

A range of accessories are also available to complement the CADD®-Solis System including lockboxes for added security.

For full details of the Accessories available please speak to your local representative.

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CADD®-Solis Medication Safety Software

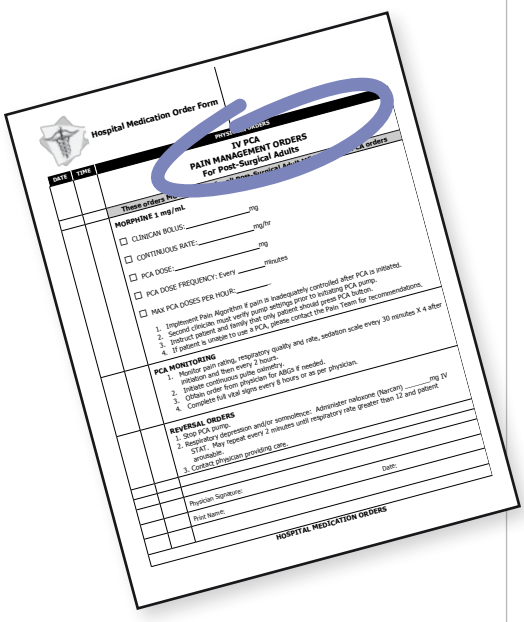
The CADD®-Solis Medication Safety Software - Administrator Application enables you to create and manage comprehensive protocol libraries using our unique Therapy, Qualifier and Drug programming sequence.

Designed to reflect clinical practices, the CADD®-Solis Medication Safety Software, gives you the ability to design customised, therapy-based protocol libraries with patient specific programming limits. This helps make the CADD®-Solis Ambulatory Infusion System safe, versatile and easy to use.

- Manage multiple libraries with the ability to designate and name each protocol library within a particular area of care
- Dose error reduction system provides standardised protocol library with dosing limits
- Administrator manages hard and soft limits
- Allows pump reports to be viewed on screen, printed and exported as Excel or Acrobat PDF files.
- Continuous Quality Indicators (CQI) log reports for healthcare providers to monitor and document trends and compliance with dosing and clinical policies
- Print pharmacy generated bar codes

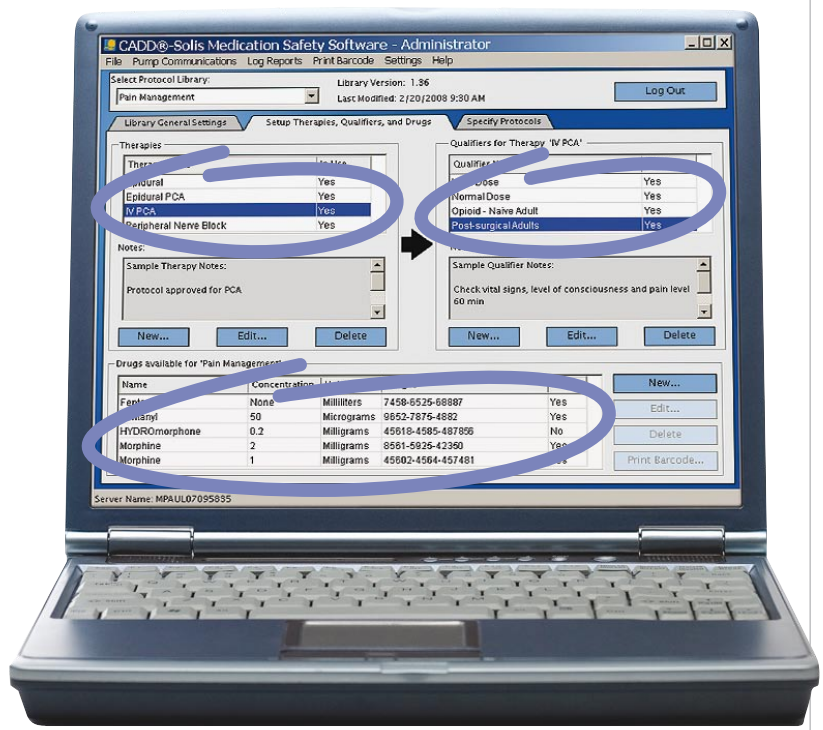
1 Physicians Order

e.g IV PCA Pain Management Orders for Post Surgical Adults



2 Administrator Software

e.g • **Therapy** IV PCA
• **Qualifier** Post-Surgical Adults
• **Drug** Morphine 1mg/mL

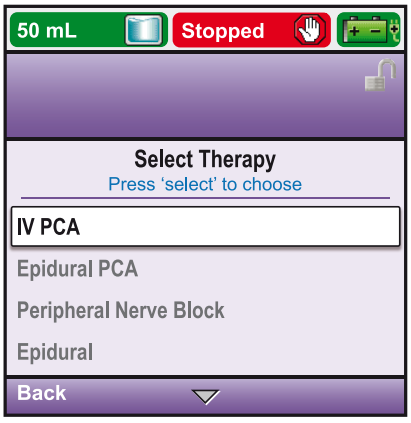


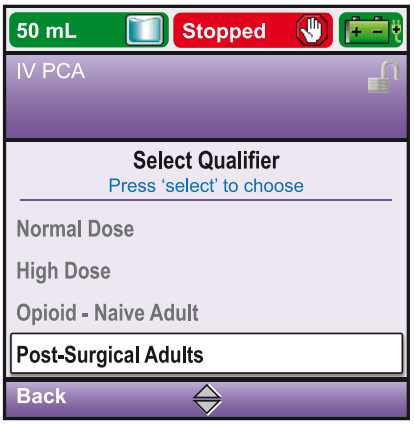
System Requirements for CADD®-Solis Medication Safety Software

- Microsoft Windows® 2000 server or Windows® 2003 server (when hosting the database on a server)
- A PC running Windows® 2000 (with SP4) or XP Professional (with SP2)
- CD-ROM drive
- Minimum 70 MB available hard disk space (application)
- Minimum 350 MB available hard disk space (database)
- Minimum 256 MB RAM
- Mouse or other pointing device
- Standard USB cable
- USB port connection to CADD®-Solis pump
- 16-bit colour capable graphics card
- Display device with minimum screen resolution of 1024 x 768

3 Programming the Pump

Clinician selects therapy, qualifier and drug from pump screens





Medication errors can be made by
1. selecting the wrong units for a medication;
2. selecting the wrong value for concentration;
3. selecting the wrong values for rates.

The CADD®-Solis ambulatory infusion system programming sequence is designed to help eliminate all three possible programming errors

Compact, lightweight design helps promote patient mobility and improved outcomes

Status Bar
colour coded for easy identification of pump operating status

Infusion settings
display at all times while running, values are colour indicated

On-screen graphs and trend reports
promote immediate patient care management

Soft key interface
makes navigation intuitive

Scroll keys
help prevent keypad bounce errors

CADD® medication cassette reservoirs
keep medications safe and secure

Keypad lock status
for added patient safety

Protocol title bar
displays therapy, qualifier, drug and concentration at all times while running

Clinical task menu
designed for ease of use

Cassette latch
allows easy attachment of CADD® Cassettes or administration sets

PCA dose
enables convenient PCA while ambulatory

Remote PCA dose cord
ergonomically designed to promote ease of use

The CADD®-Solis Ambulatory Infusion System

SPECIFICATIONS	
Indications	Intravenous, intra-arterial, subcutaneous, intraperitoneal, in close proximity to nerves, into an intraoperative site (soft tissue, body cavity/surgical wound site), epidural space, or subarachnoid space infusion. This pump is intended for therapies that require a continuous rate of infusion, patient-controlled demand doses, or both (such as patient-controlled analgesia)
Pump Size	1.6 in. x 4 in. x 5 in. excluding cassette or other accessories
Screen Size	2.12 in. x 2.12 in. (320 pixels x 320 pixels)
Weight	21 oz. including 4 AA alkaline batteries, excluding other accessories
On-board Protocol Library	Stores up to 500 protocols
Security	Cassette/keypad lock and three customizable security access levels: keypad code; clinician code; administrator code
Accuracy	+/- 6% (nominal)
Delivery Methods	Continuous rate; PCA dose; Clinician bolus
Reservoir Volume	0 to 9999 mL; programmable in 1 mL increments, displayed in 0.1 mL increments
Units	Milliliters (mL), milligrams (mg), micrograms (mcg)
Concentration	mg/mL: 0.1 to 0.5 mg/mL in increments of 0.1 mg/mL 0.5 to 1 mg/mL in increments of 0.5 mg/mL 1 to 15 mg/mL in increments of 1 mg/mL 15 to 100 mg/mL in increments of 5 mg/mL mcg/mL: 1 to 15 mcg/mL in increments of 1 mcg/mL 15 to 100 mcg/mL in increments of 5 mcg/mL 100 to 500 mcg/mL in increments of 100 mcg/mL
Continuous Rate	0 to 30 mL/hr (or the mg or mcg equivalent)
PCA Dose	0 to 20 mL (or mg or mcg equivalent) Delivery rate (continuous rate + PCA dose): programmable from 40 to 175 mL/hr
PCA Dose Lockout	1 minute to 24 hours in the following increments: 1 minute for values between 1 and 20 minutes 5 minutes for values between 20 minutes and 24 hours
Max Doses Per Hour	1 to 60
Delivery Limit Amount	0.1 to 1000 mL (or the mg or mcg equivalent) in increments of: 0.01 mL from 0.01 to 0.5 mL 0.5 mL from 0.5 to 100 mL 1.0 mL from 100 to 1000 mL
Given	0 to 99,999.99 in 0.01 unit increments
Clinician Bolus	0 to 20 mL (or mg or mcg equivalent) Delivery rate (continuous rate + clinician bolus): programmable from 40 to 175 mL/hr
Delivery Limit Method	Delivery limit, max doses per hour or not in use
Delivery Limit Period	1 to 12 hours in increments of 1 hour
Power Sources	4 AA (IEC LR6) alkaline batteries; AC adapter; rechargeable battery pack
Battery Life (Alkaline)	Approximately 120 hours at 10 mL/hr
Moisture Protection	Splashproof (IPX4) per IEC 60529
Event Log	5000 events
Alarms and Messages	Multiple alarms, all color coded, many with option to "acknowledge" or "silence". Alarms include high priority; medium priority; low priority; informational messages and system fault alarms
Alarm Volume	High, medium, low
Alarm Sound Theme	Standard, intense, distinctive
High Pressure Alarm	18 +/- 9 psi
Graphs	PCA dose graph; Delivery history and pie chart
Reports	Given and PCA dose counters; delivery log; event log; protocol library summary; device information
Other	Scroll keys; task-based soft key user interface; cassette latch; cassette/keypad lock; indicator lights; continuous backlight display with AC power; data interface port; remote dose cord; upstream and downstream occlusion sensors; polemount adapter plate; CADD® medication cassette reservoir; compatible with CADD®-Solis medication safety software

The CADD®-Solis Ambulatory Infusion System

Description	Order Code
CADD®- Solis Ambulatory Infusion System	
CADD®-Solis Ambulatory Infusion Pump - Grey Variant	21-2101-51
CADD®- Solis Ambulatory Infusion Pump - Yellow Variant	21-2102-51
CADD®- Solis Medication Safety Software - Administrator	21-2194-51
CADD®- Solis Accessories	
Remote Dose Cord	21-2186-51
Lockbox Clear	21-2188-51
Lockbox Yellow	21-2189-51
Polemount Adapter	21-2187-51
Polemount Swivel Accessory	21-2183-51
Lockable Polemount Bracket	21-6120-51
Battery Door Replacement	21-2184-51
Pump Key	21-2185-51
AC Adapter	21-2140-51
Power Cord – UK	21-2148-51
Power Cord – Australasia (Other country specific power cords are available. Codes upon request.)	21-2152-51
Rechargeable Battery	21-2160-51

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