

Kendall™ DL ECG Lead Wires stay with the patient
from admission to discharge

Patient care with a personal touch

Partners in preventing healthcare associated infections

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Delivering the future today

"Patients who come to the emergency departments of the future will be assigned their own dedicated ECG leads that will be used throughout their stay and be disposed of at the time of discharge. Hospitals that initiate this trend can, quite possibly, be light years ahead of the rest in the struggle against the spread of HAI caused by resistant bacteria."

Donna Quinton Brown
Critical Care Nurse 31[3]: 62-69[1]

The current challenges with reusable cables & lead wires:

Multiple exposure

Patients can be exposed to multiple sets of leads as they transfer through the hospital on their journey across different departments.

Pathogen entry points

Reusable leads require attachment to a trunk cable which can create an entry point for bacteria.

Infection risk

They are attached directly to the skin and usually positioned in the patient's bed where they are potentially exposed to body fluids such as blood and vomit.

Difficult to clean

Reusable lead wires have specific cleaning challenges that make them difficult to clean effectively. Studies also show that cleaning does not remove all pathogens.[2]





Personal care, hygienic solution

The Kendall™ DL disposable ECG cable and lead wire system delivers personalised patient care.

Our innovative single-patient electrode solution stays with patients for as long as they need it – from admission to discharge – as they make their journey through the care continuum.

In a customer survey, a clinical nurse had this to say about adopting the Kendall™ DL disposable ECG cables and lead wires:

"Since they are disposable, we don't have to worry about trying to get all the adhesive tape and body fluids off of the cable. We could never get the reusable cables 'clean.'"[3]

Clinical Nurse

77% of reusable ECG leads were contaminated with one or more antibiotic-resistant nosocomial pathogen.[4,5]

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Personal care, multiple benefits

The Kendall™ DL disposable ECG cable and lead wire system delivers:

Single patient use
Reduces risk of cross-contamination and enhances personal hygiene.

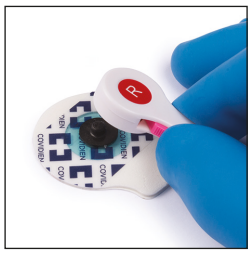
Dual connect
One set of leads for bedside and telemetry monitors.

Technology
To reduce the risk of 'leads off' false alarms.[6]

Convenient
The Kendall™ DL system means that healthcare workers are freed from the challenging task of cleaning lead wires and cables, therefore allowing them more time to dedicate to patient care.



Disposable patient-to-monitor and lead wire system
Reduces risk of cross-contamination.



Push-button design
Gentle attachment allows for improved patient comfort.



Secure attachment
Reduces pop-off,[6] which may result in false clinical alarms.



Lightweight design
For patient comfort.



Peelable ribbon design
Customisable to fit any patient, reduces wire tangling.



Fully shielded
Reduces electromagnetic interference.



Dual-connect option
Connects interchangeably with bedside or telemetry monitors using one set of leads.



Standardised connections
Can be connected to most monitors using adaptors. Adaptors are available for 3-, 5- and 10-lead monitoring.







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Telemetry

A recent study[5] has shown that telemetry leads are a potential reservoir of nosocomial pathogens that can cause hospital-acquired infections. Telemetry leads were also found to be difficult to clean properly and consistently.

Kendall™ DL telemetry:

personal leads for patients on the move

- Short lead wire to prevent contact with the floor
- Numerous connections available
- Options available with SpO_2

Radiolucent leads

Kendall™ DL lead wires are radiolucent, therefore they are particularly suitable for patients requiring X-rays.

- Available in two lengths: 0,9 & 1,8 m
- Suitable for use in the cardiology lab
- Blue colour for easy identification




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Clinical alarm management

Kendall™ DL reduces incidence of "pop-off"

The lead wire connector in the Kendall™ DL system has been proven to provide a more robust mechanical coupling to reduce "pop-off."[7]

"Pop-off" is a term for the inadvertent separation of the lead wire from the electrode. Pop-off is a significant problem for patients and staff:

- **Affects signal**
  Dislodgement or partial separation can inhibit the reliability of the signal, leading to inaccurate data
- **False alarms**
  Pop-off may cause alarm fatigue, which can potentially delay a clinical response in real alarm situations
- **Disrupted environment**
  False alarms can unnecessarily frighten the patient and disrupt others nearby
- **Poor use of employee time**
  An electrode dislodgement requires healthcare workers to focus precious time reattaching the electrode

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Ordering information

Lead Sets

IEC	AAMI	Description	Quantity (ea)
33103EG		Kendall™ DL Disposable Cable and Lead Wire System (3 Lead Set with green lead)	10
33103EB		Kendall™ DL Disposable Cable and Lead Wire System (3 Lead Set with black lead)	10
33105E	33105	Kendall™ DL Disposable Cable and Lead Wire System (5 Lead Set)	10
33110E	33110	Kendall™ DL Disposable Cable and Lead Wire System (10 Lead Set, V and chest leads)	5
33111E	33111	Kendall™ DL Disposable Cable and Lead Wire System (5 Lead Set, V leads)	10

Telemetry Lead Sets

33112E	33112-	Kendall™ DL Disposable Direct Connect. For use with 5 Lead Telemetry System manufactured by GE Medical Systems Information Technologies, Inc., under its trademark ApexPro™*	10
33113E	33113	Kendall™ DL Disposable Direct Connect. For use with 5 Lead Telemetry System manufactured by Koninklijke Philips Electronics N.V. under its trademark Veridia™*	10
33114E	33114	Kendall™ DL Disposable Lead System. For use with 5 Lead Telemetry Systems manufactured by Koninklijke Philips Electronicvs N.V. under its trademark IntelliVue™*	10
-	33125-	Kendall™ DL Disposable Lead System. For use with 6 Lead CH Telemetry System manufactured by GE Medical Systems Information Technologies, Inc., under its trademark ApexPro™*	10
-	33115	Kendall™ DL Disposable Lead System. For use with 5 Lead Telemetry Systems manufactured by Spacelabs under its trademark Aria	10
-	33126-	Kendall™ DL Disposable Lead System. For use with 6 Lead FH Telemetry Systems manufactured by GE Medical Systems Information Technologies, Inc., under its trademark ApexPro™*	10

The Cardinal Health range of Kendall™ DL Disposable ECG Cables and Lead Wire Systems

IEC	AAMI	Description	Quantity (ea)
33132E	33132-	Kendall™ DL Disposable Cable and Lead Wire System. For use with 5 Lead GE telemetry systems	10
-	33133	Kendall™ DL Disposable Cable and Lead Wire System. For use with 5 Lead Spacelabs Healthcare Telemetry Systems	10
-	33134	Kendall™ DL Disposable Cable and Lead Wire System. For use with 6 Lead Nihon Kohden Telemetry Systems	10
-	33147	Disposable 5 Lead. For use with Philips IntelliVue™ MX40 Telemetry System - Direct Connect	100
-	33148	Disposable 6 Lead. For use with Philips IntelliVue™ MX40 Telemetry System - Direct Connect	100
-	33149	Disposable 5 Lead. For use with Philips IntelliVue™ MX40 Telemetry System, compatible with Nellcor or Masimo SpO_2 Sensors - Direct Connect	100
-	33150	Disposable 6 Lead. For use with Philips IntelliVue™ MX40 Telemetry System, compatible with Nellcor or Masimo SpO_2 Sensors - Direct Connect	100
-	33151-	Disposable 5 Lead. For use with Philips IntelliVue™ MX40 Telemetry System, compatible with Philips SpO_2 Sensors - Direct Connect	100
-	33152	Disposable 6 Lead.For use with Philips IntelliVue™ MX40 Telemetry System, compatible with Philips SpO_2 Sensors - Direct Connect	100

Dual Connect Lead Wires

33135E	33135T	Kendall™ DL Disposable Cable and Lead Wire System (5 Lead Dual Connect, Adaptor Required) x	5
33136E	33136T	Kendall™ DL Disposable Cable and Lead Wire System (5 Lead Dual Connect)	25
-	33137	Kendall™ DL Disposable Cable and Lead Wire System (3 Lead Dual connect)	100
-	33145-	Kendall™ DL Disposable Cable (5 Lead Dual Connect)	5

Radiolucent Disposable Lead Sets

-	33136R36	Kendall™ DL Disposable Lead Set 5 Lead, Radiolucent (0.9 m)	10
-	33136R72	Kendall™ DL Disposable Lead Set 5 Lead, Radiolucent (1. 8m)	10
-	33136RV36	Kendall™ DL Disposable Lead Set 5 V Lead, Radiolucent (0.9 m)	10

1 Donna Quinton-Brown "Disposable vs Reusable Electrocardiography Leads in Development of and Cross-Contamination by Resident Bacteria" Crit Care Nurse 2011; 31:62-68 doi: 10.4087/ccn2011874 © 2011 American Association of Critical-Care Nurses.
2 Albert et al (2010) "Cleaned, Ready-to-Use, Reusable Electrocardiographic Lead Wires as a source of pathogenic microorganisms "American Journal of Critical Care. 2010.
3 Customer web-based survey conducted by Covidien, December 2011.
4 Jancin (2004). "Antibiotic – Resistant Pathogens Found on 77% of ECG Lead Wires". Cardiology News. March 2004.
5 Safdar, Draytn et al, Telemetry leads as reservoir for nosocomial pathogens, Int J Infect Control 2012, v8:i2.
6 Albert el al (3013) "Randomized Controlled Trial of Differences in Artifact/Noise in Disposable versus Reusable Electrocardiography" Abstract presented at the AACN National Teaching Institute, Boston, MA May 21, 2013. Abstract Wires.
7 Coggins S, Lead Wire Retention for Kendall™ DL Disposable Cable and Lead Wire System, www.patientcareedu.com/imageServer.aspx?contentID=28348&contenttype=application/pdf; accessed 17th June 2014.

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