

ActiveCare[®]

VS

IPC

Combined treatment of ActiveCare and enoxaparin compared with standard IPC and enoxaparin, for the prevention of venous thromboembolism after joint arthroplasties

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The Journal of Arthroplasty Vol. 24 (2), February 2009

**MCS**
Medical Compression
Systems Inc.

Venous Thromboembolic Disease Reduction with a Portable Pneumatic Compression Device.



Froimson M., Murray T., Fazekas A., Venous thromboembolic disease reduction with a portable pneumatic compression device.
J Arthroplasty 2009;24(2):310-316

OBJECTIVE

To compare the efficacy and safety of **ActiveCare** to that of standard IPC (both in combination with enoxaparin), in preventing postoperative venous thromboembolism (VTE) after total joint arthroplasties.

INCLUSION CRITERIA

Adult patients, undergoing elective TKA or THA surgery.

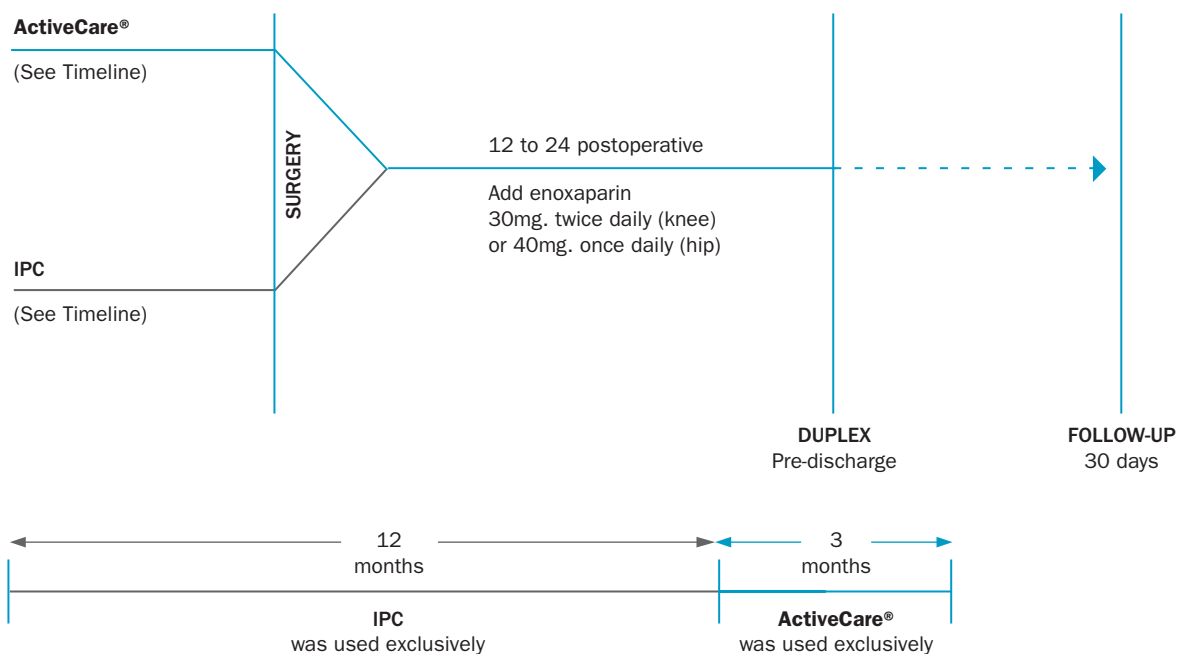
DESIGN

A non-randomized (sequential), comparative performance study.

During the study frame-time, the IPC was replaced by **ActiveCare**.

ENDPOINTS

Efficacy - VTE defined as deep vein thrombosis as detected by bilateral duplex scan at discharge, or documented symptomatic deep vein thrombosis and pulmonary embolism.



■ **ActiveCare®** is the brand name of a medical device classified as Continued Enhanced Circulation Therapy (**C.E.C.T.**).

RESULTS

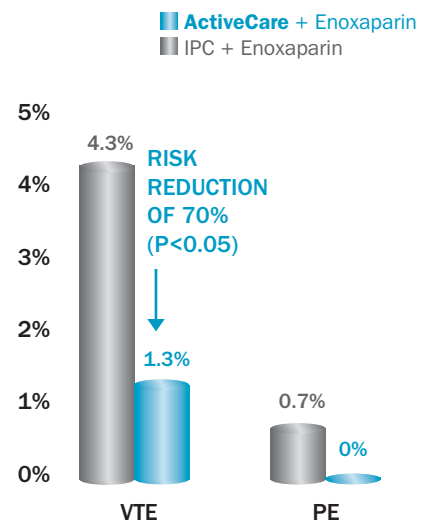
Summary - One thousand, five hundred and seventy-seven patients were available for per-protocol analysis: One thousand, three hundred and fifty-four patients used the standard IPC and two hundred and twenty-three patients used **ActiveCare**.

Efficacy - The replacement of the standard IPC by **ActiveCare** significantly reduced the VTE rate (70% Risk Reduction).

LOS - The average LOS was shorter for patients treated with **ActiveCare** than those treated with IPC (4.2 days vs. 5 days respectively).

STUDY OUTCOME

	ActiveCare®	IPC
VTE	1.3% (3/223)	4.3% (58/1354)
DVT	1.3% (3/223)	3.6% (49/1354)
PE	0% (0/223)	0.7% (9/1354)
LOS (days)	4.2	5.0
COMPLIANCE	83% (20 hrs)	49% (11.7 hrs)



EVIDENCE-BASED CONCLUSION

ActiveCare proved significantly more effective than the standard IPC when used in conjunction with low-molecular-weight heparin for DVT prevention in high-risk orthopedic patients.

TECHNICAL SPECIFICATIONS

INDICATION	DVT prophylaxis, reduction of post-operative pain and swelling, reduction of wound healing time
SIZE	5.3 x 5.3 x 2.4 in (135 x 135 x 60 mm)
WEIGHT	730 g / 1.6 lb (including battery)
POWER INPUT	9.7 VDC
BATTERY*	7.2 V (rechargeable NiMH)
Battery life	5h (after full recharge)
Recharge time	4-5 h
CHARGER	Built-in
MAINS SUPPLY	100-240V, 50/60 Hz
INFLATION MODE	Sequential compression
PRESSURE (preset)	
Calf	50 mmHg (± 10%)
Foot	130 mmHg (± 10%)
Thigh	50 mmHg (± 10%)
COMPRESSION	
DURATION	
Calf	Up to 10 sec
Foot	Up to 6 sec (depending on model)
Thigh	Up to 15 sec (depending on model)
PULSE FREQUENCY	
Calf	1 per minute
Foot	2 per minute
Thigh	1 per minute

*Battery life and recharge may vary depending on usage.

WARNING: Use only the battery pack provided by MCS.

Use of any alternative power source could cause irreparable damage to the system!

All MCS products are **LATEX FREE**
FDA CLASS II Prescription device

