

# ActiveCare<sup>®</sup> +

# LMWH

# VS

# LMWH

**Combined treatment of ActiveCare and enoxaparin compared with enoxaparin, for the prevention of venous thromboembolism after total knee and total hip arthroplasties**

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**MCS**  
Medical Compression  
Systems Inc.

# Portable Compression Device and LMWH Compared With LMWH for Thromboprophylaxis After Total Joint Arthroplasty.



Edwards J., Pulido P., Colwell C., et al., Portable Compression Device and LMWH compared with LMWH for thromboprophylaxis after total joint arthroplasty. *J Arthroplasty* 2008;23(8): 1122-1127

# OBJECTIVE

To compare the efficacy and safety of the combination of **ActiveCare** and enoxaparin versus enoxaparin (30mg bid) in preventing venous thromboembolism (VTE) after elective knee arthroplasty (TKA) or total hip arthroplasty (THA).

# INCLUSION CRITERIA

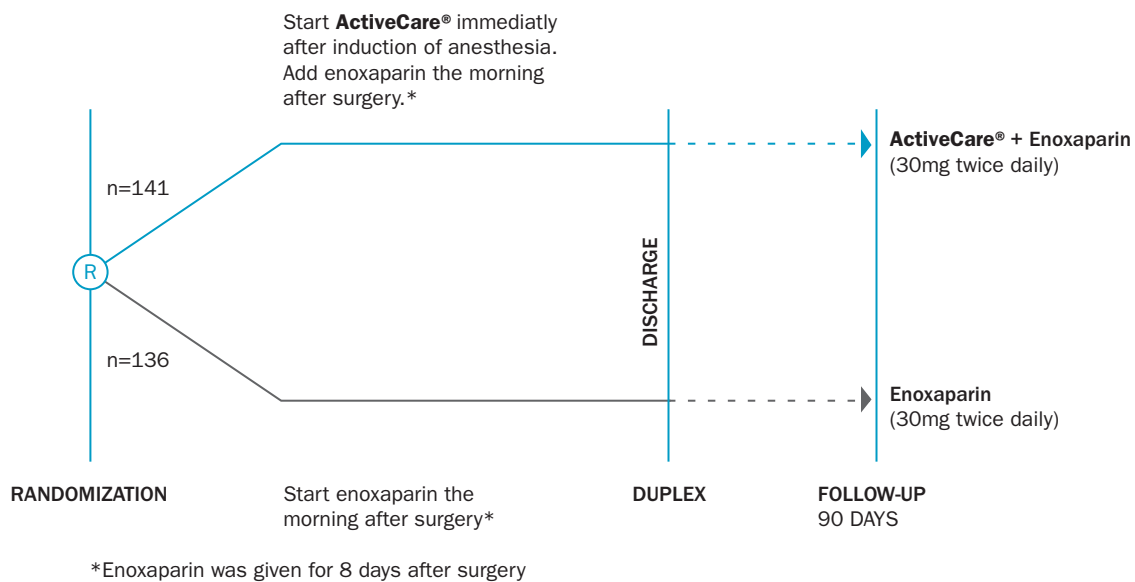
Adult patients, undergoing elective TKA or THA surgery.

# DESIGN

A prospective, randomized, treatment controlled study.

# 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 (up to 90 days postoperative).



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

# RESULTS

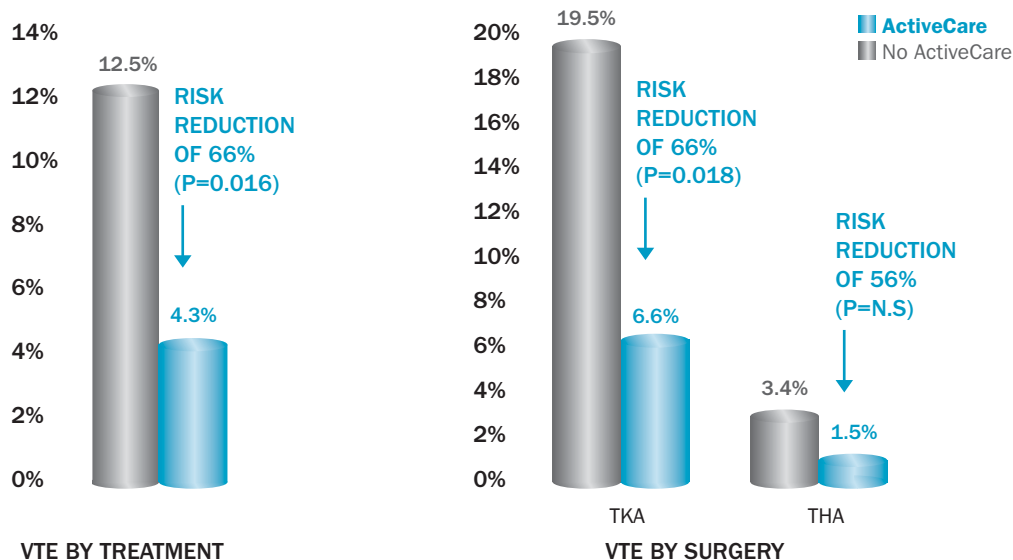
**Summary** - Two hundred seventy-seven patients were available for per-protocol analysis: One hundred forty-one patients were randomized to the **ActiveCare** + enoxaparin group (76 TKA, 65 THA) and one hundred thirty-six patients were randomized to the enoxaparin group (77 TKA, 59 THA).

**Efficacy** - The addition of **ActiveCare** to enoxaparin significantly reduced the DVT rate (66% Risk Reduction).

**Safety** - The safety profile remained unchanged.

## VTE OUTCOME

|             | ActiveCare®<br>+ ENOXAPARIN | ENOXAPARIN        | P VALUE |
|-------------|-----------------------------|-------------------|---------|
| TOTAL GROUP | 4.3%<br>(6/141)             | 12.5%<br>(17/136) | 0.016   |
| TKA         | 6.6%<br>(5/76)              | 19.5%<br>(15/77)  | 0.018   |
| THA         | 1.5%<br>(1/65)              | 3.4%<br>(2/59)    | N.S     |



## EVIDENCE-BASED CONCLUSION

In patients undergoing elective joint arthroplasties the combination of **ActiveCare** and enoxaparin is significantly more effective than enoxaparin alone.

# TECHNICAL SPECIFICATIONS

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

