

# Creative Uses of Low Profile Primary Wound Dressings to Enhance Compression Profiles and Wound Healing in Persons with Lymphedema: A Case Series

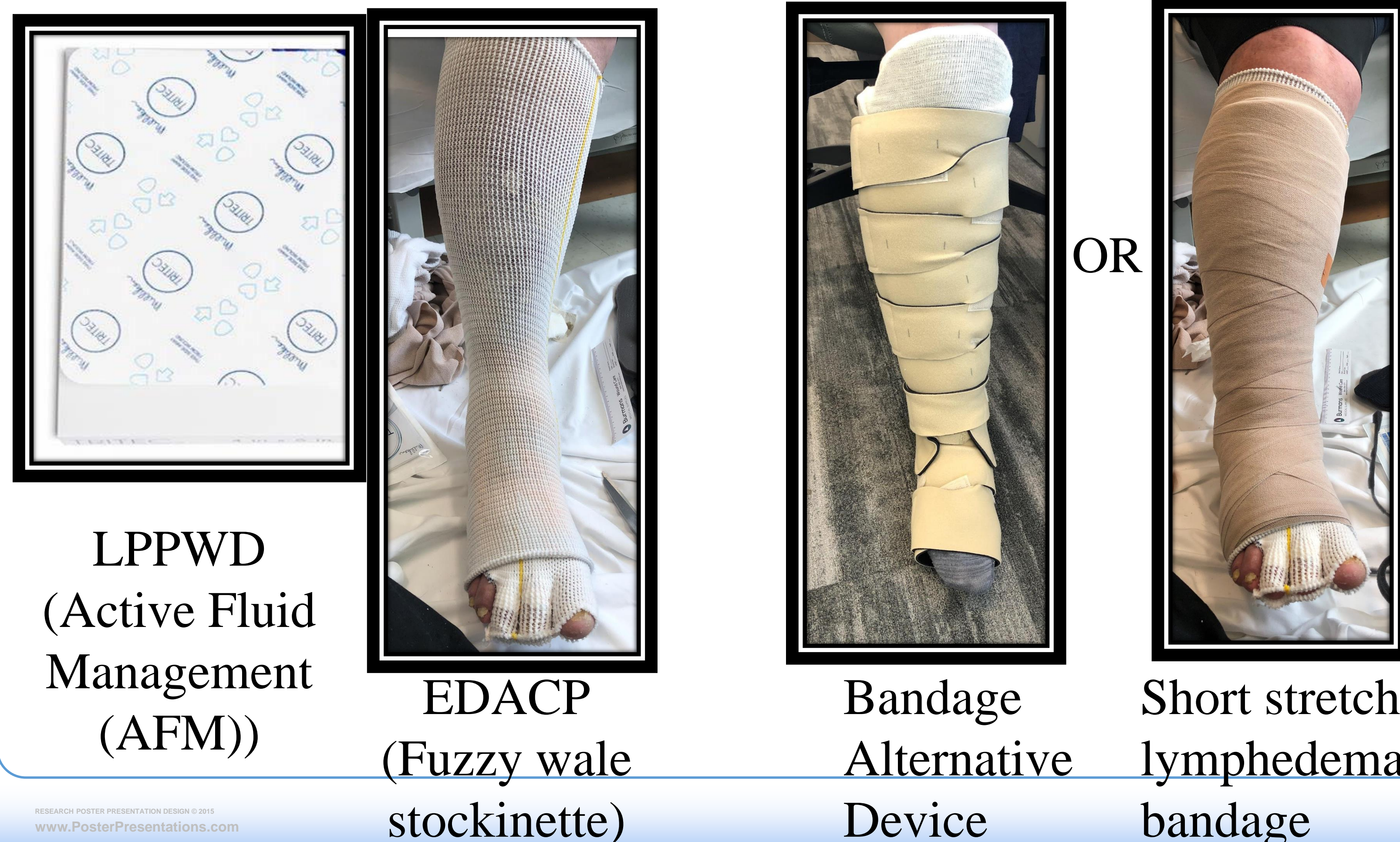


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## BACKGROUND

- Persons with lymphedema often struggle with chronic edema, non-healing wounds, pain, heavy exudate, and edema-associated skin changes (i.e. hyperkeratosis, fibrosis, stasis dermatitis).
- Compression is the cornerstone of treatment and has repeatedly shown positive effects on these symptoms.
- The primary wound dressing (PWD) is designed to optimize the wound healing environment.
- Choosing a PWD that optimizes both wound healing and compression effectiveness is essential for positive outcomes.
- Research has demonstrated that evenly-distributed alternating compression profiles (EDACP) can enhance edema reduction and facilitate more rapid wound healing.
  - EDACPs have been hypothesized to apply micro-strain on lymphatics facilitating lymphangion motricity and lymphangiogenesis.
- Research suggests that PWDs can affect sub-bandage pressures and distribution patterns.
  - Low profile primary wound dressings (LPPWD) do not significantly impact pressure distribution patterns.
- Hence, using LPPWDs with EDACPs should support the effectiveness these compression profiles have on edema reduction and wound healing.

## INTERVENTION



## CASE 1



Before

After

- Wounds previously treated for 5 years
- Complicated by osteomyelitis of the 2<sup>nd</sup> toe
- **INTERVENTION:** LPPWD (AFM), EDACP (Fuzzy Wale Stockinette) and short stretch lymphedema bandage
- Fully healed in 12 months and have remained healed

## CASE 2



Before

After

- Wounds previously treated for 1.3 years
- **INTERVENTION:** LPPWD (AFM), EDACP (Fuzzy wale Stockinette), and short stretch lymphedema bandage
- Fully healed in 70 days

## CASE 3



Before

After

- Wounds treated for 2.5 years
- **INTERVENTION:** LPPWD (AFM), EDACP (Fuzzy Wale Stockinette) and bandage alternative device
- Fully healed in 68 days

## RESULTS

- Wounds healed 80 - 92% faster with the use of LPPWDs with EDACPs.
- Edema reduction ranged from 3-18% from start of care
- Persons with lymphedema showed visible improvements in skin texture/fibrosis, reduction in hyperkeratosis, and complete resolution of lymphorrhea.

## DISCUSSION

- LPPWDs and EDACPs have a positive effect on wound healing and edema reduction in persons with lymphedema.
- The use of LPPWDs allow for the EDACPs' affect in and around the wound bed.
- The PWD's effect on wound healing and edema reduction should be considered when applying compression profiles.
- The impact of the PWD on compression profiles warrants more research.

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