

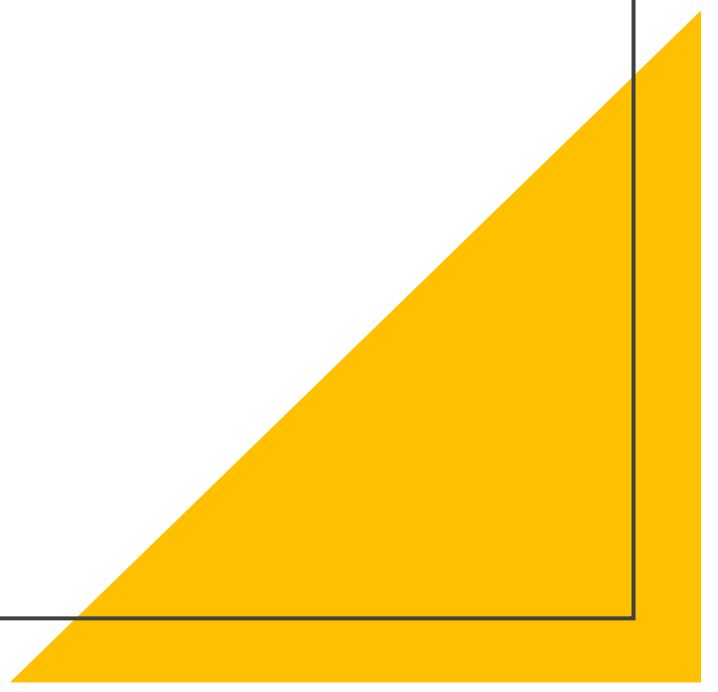
Comprehensive Analysis of Burn Injuries and Advanced Methods for Burn Wound Management

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Introduction

- India records 60-70 lacs burn injury annually of which 1.4 lacs people die and 2.4 lacs suffers from disability.
 - Burn is the second largest group of injuries after road accidents.
 - 70% of cases are in 15-40 years age group.
 - 4 out of 5 cases are either women or children.
 - 80% cases with women are related to kitchen related accidents.
 - 11th leading cause of death/injury of children age 1-9 years
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Global burn care market size

Year	CAGR	Market size
2023-2033	8.4%	INR 14,777-33,248 cr
2022-2023	7.5%	INR 13,710-14,777 cr
2018-2022	6.0%	INR 10,663-13,710cr



Research Questions

1.Primary Research Question:

What is the comparative effectiveness of different dressing types (Silk with Silver, Silver, Hydrocolloid, Alginate, PHMB, and Traditional) on the wound healing rates of burn patients treated at AIIMS Hospital?

2.Secondary Research Questions:

- How does the frequency of dressing changes impact the wound healing process for each type of dressing?
- Are there significant differences in the healing speed between the various types of dressings?
- What are the patient demographics and clinical characteristics associated with the use of each type of dressing?
- What is the patient satisfaction level regarding the different types of dressings used?



: Objectives

1. Assess the market landscape of advanced burn care products.
 2. Evaluate clinical efficacy and patient outcomes of advanced wound care methods.
 3. Provide strategic recommendations for stakeholders.
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Methodology

1. Study Design

- This research follows a retrospective cohort study design to evaluate the effectiveness of various dressing types on the wound healing of burn patients.

2. Study Setting

- The study was conducted at AIIMS Hospital, involving two different hospitals under its jurisdiction.

3. Study Population

- The study included a total of 135 burn patients who received treatment at AIIMS Hospital. The patients were selected based on the following inclusion and exclusion criteria:
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- **Inclusion Criteria:**

- Patients diagnosed with burn injuries.
- Patients receiving treatment with specific types of dressings: Hydrocolloid, Alginate, Silver, PHMB, Silk with Silver.

- **Exclusion Criteria:**

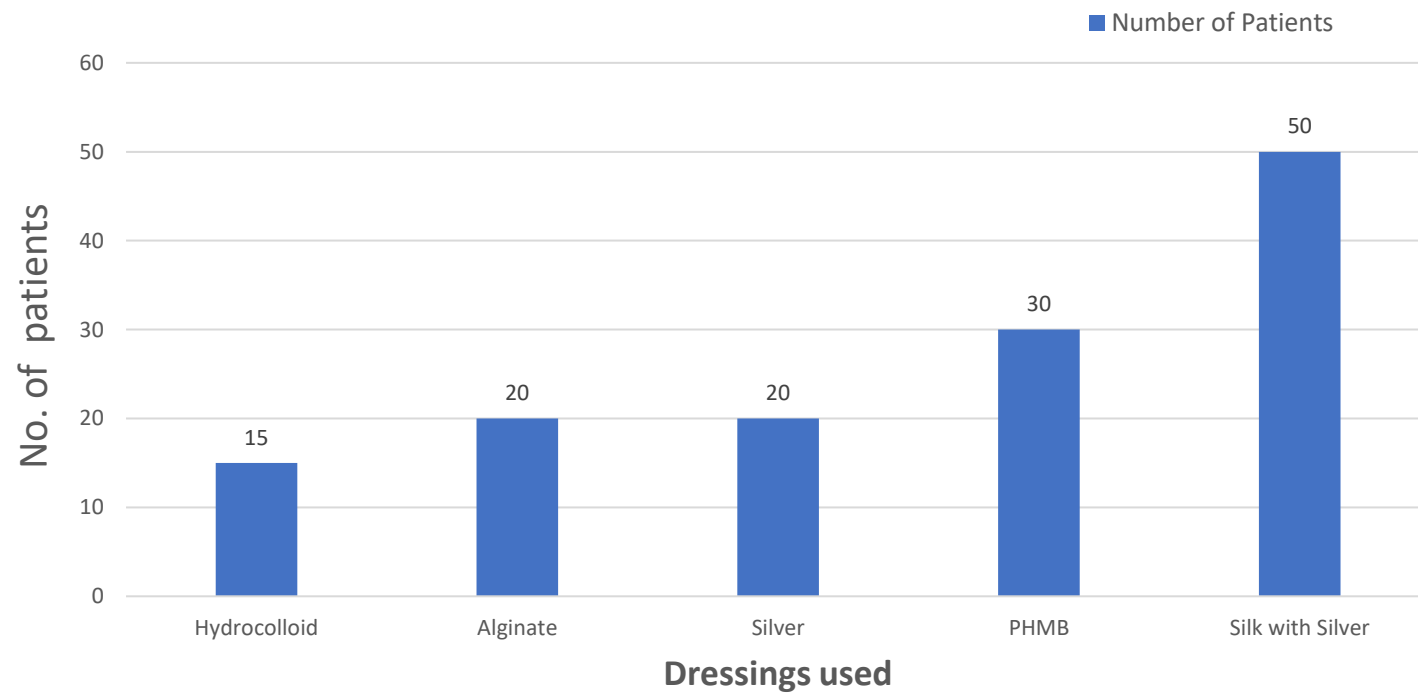
- Patients with underlying chronic conditions affecting wound healing.
- Patients with incomplete medical records or those who did not complete the follow-up.

4. Data Collection

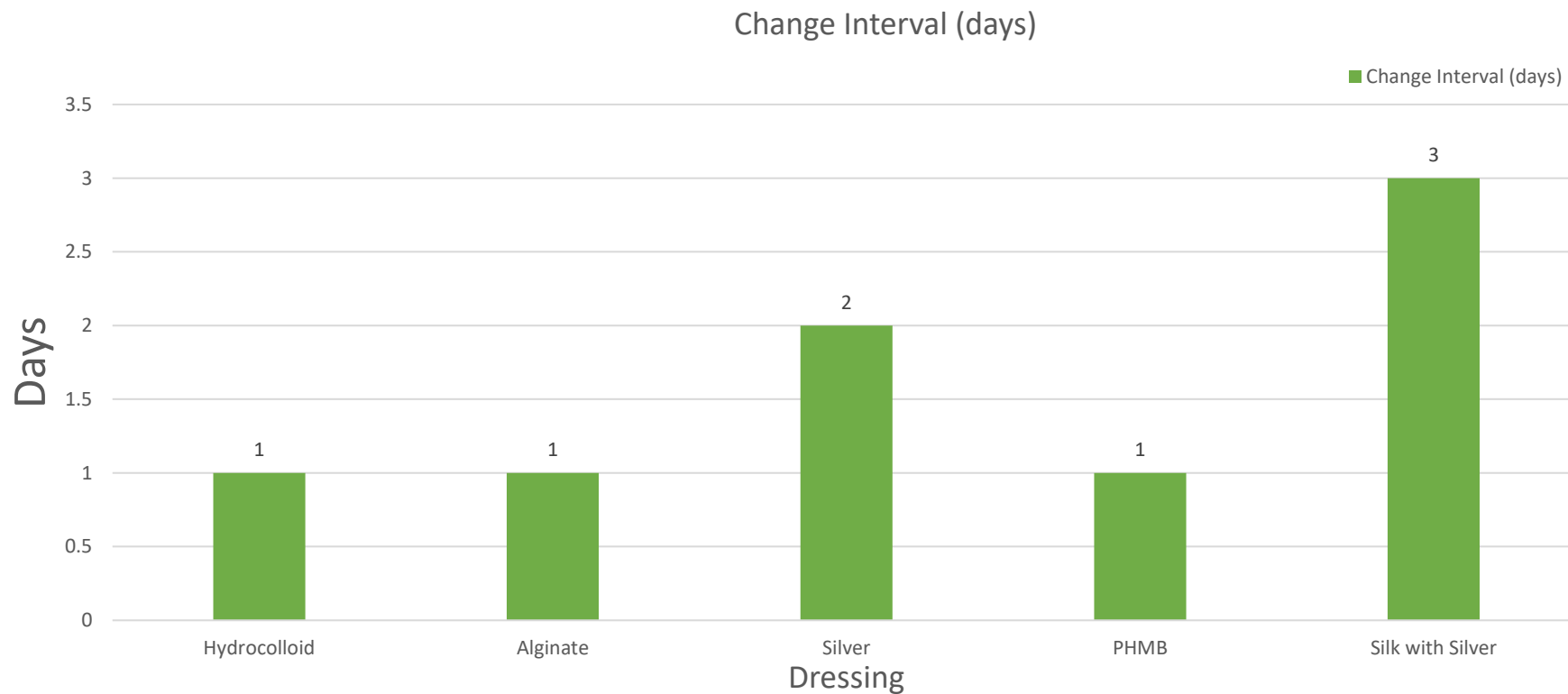
Data were collected from the medical records of the 135 patients treated with different types of dressings. The following variables were recorded:

- Type of dressing used.
- Number of patients treated with each dressing type.
- Wound healing speed, ranked based on observed healing time.
- Dressing change intervals in days.

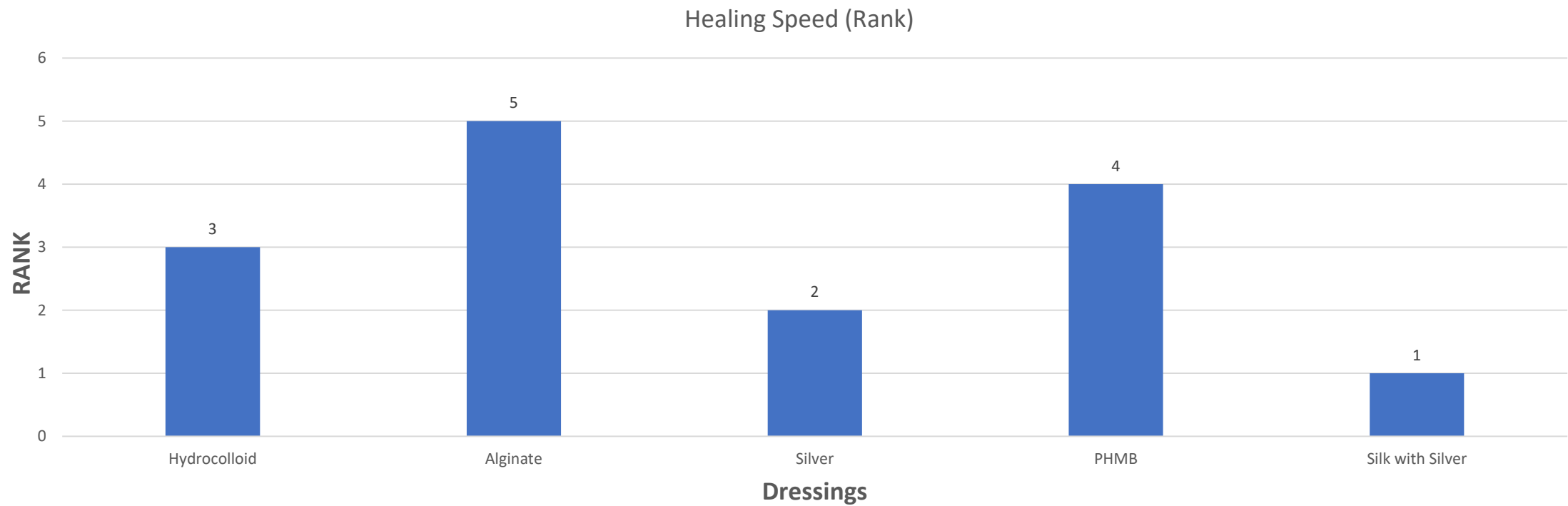
Results



Results



Results



Recommendation

- **Increase Funding:** Allocate more resources to specialized burn care units and advanced treatments.
- **Enhance Training:** Provide ongoing education for healthcare providers on the latest burn care techniques.
- **Affordable Dressings:** Innovate cost-effective burn care products and ensure their accessibility.
- **Public Education:** Develop programs to raise awareness about burn prevention and care.



Conclusion

- The research aimed to evaluate the effectiveness of different dressing types on wound healing in burn patients.
 - The findings indicate that Silk with Silver dressing is most effective in promoting faster wound healing and reducing infection chances compared to other dressing types.
 - Advanced burn wound management methods significantly improve patient outcomes and quality of life.
 - Despite challenges such as cost and accessibility, there are substantial growth opportunities through technological innovation and market expansion.
 - Continued research and development are essential to address the unmet needs of burn patients and advance care standards globally.
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