

ABSTRAK

UNIVERSITAS MUHAMMADIYAH JEMBER
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Implementasi 4R (*Recognizing, Reduction, Retaining, Rehabilitation*) Pada Pasien
Post KLL dengan Fraktur di Ruang IGD RSUD dr. H. Koesnadi Bondowoso

XV + 70 hal + 14 tabel + 1 bagan + 4 lampiran

Abstrak

Pendahuluan: Kecelakaan lalu lintas (KLL) merupakan penyebab signifikan morbiditas dan mortalitas global dengan fraktur sebagai salah satu manifestasi klinis utama yang berpotensi menimbulkan kecacatan jangka panjang. Penanganan fraktur di instalasi gawat darurat (IGD) membutuhkan pendekatan terstruktur untuk meminimalkan komplikasi melalui prinsip 4R. Prinsip 4R (*Recognizing, Reduction, Retaining, Rehabilitation*) menawarkan kerangka kerja komprehensif dalam manajemen fraktur. **Metode:** Penelitian ini menggunakan desain studi kasus deskriptif pada tiga pasien post-KLL dengan fraktur yang dirawat di IGD RSUD dr. H. Koesnadi Bondowoso. Data diperoleh melalui observasi langsung, telaah rekam medis, pengukuran rentang gerak (ROM), kekuatan otot (dinamometer), intensitas nyeri (VAS) serta wawancara semi-terstruktur. Analisis data dilakukan secara deskriptif untuk mengevaluasi perubahan kondisi pasien sebelum dan sesudah implementasi prinsip 4R. **Hasil:** Hasil pelaksanaan prinsip 4R menunjukkan adanya penurunan intensitas nyeri (VAS awal 6–7 menjadi 2–3), perbaikan stabilitas fraktur serta peningkatan fungsi mobilisasi pada ketiga pasien. Tidak ditemukan komplikasi seperti infeksi luka atau gangguan neurovaskular dan didukung dengan rehabilitasi dalam pemulihan fungsi ekstremitas secara bertahap. **Kesimpulan:** Prinsip 4R terbukti efektif dalam memperbaiki kondisi klinis pasien post-KLL dengan fraktur di IGD. Pendekatan berbasis *evidence-base* ini layak diintegrasikan sebagai standar penatalaksanaan fraktur pada layanan kegawatdaruratan.

Kata Kunci: 4R, Fraktur, Kecelakaan Lalu Lintas

ABSTRACT

**MUHAMMADIYAH UNIVERSITY JEMBER
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*Final Scientific Work, Juli 2025
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*Implementation of 4R (Recognizing, Reduction, Retaining, Rehabilitation) in
Post-Traffic Accident Patients with Fractures at the Emergency Room of RSUD
Dr. H. Koesnadi Bondowoso*

XV + 70 pages + 14 tables + 1 chart + 4 appendices

Abstract

Introduction: Traffic accidents are a significant cause of global morbidity and mortality, with fractures being one of the major clinical manifestations that may lead to long-term disability. Management of fractures in the emergency department requires a structured approach to minimize complications, one of which is the 4R principle. The 4R principle (Recognizing, Reduction, Retaining, Rehabilitation) provides a comprehensive framework for fracture management. **Methods:** This study employed a descriptive case study design involving three post-traffic accident patients with fractures treated in the Emergency Room of RSUD Dr. H. Koesnadi Bondowoso. Data were collected through direct observation, medical record review, measurements of range of motion (ROM), muscle strength (dynamometer), pain intensity (VAS) and semi-structured interviews. Data analysis was conducted descriptively to evaluate patient condition changes before and after implementing the 4R principle. **Results:** The application of the 4R principle demonstrated a reduction in pain intensity (initial VAS 6–7 to 2–3), improved fracture stability, and enhanced mobilization function in all three patients. No complications such as wound infection or neurovascular impairment were observed, and rehabilitation supported gradual recovery of extremity function. **Conclusion:** The 4R principle proved effective in improving the clinical condition of post-traffic accident patients with fractures in the emergency setting. This evidence-based approach is recommended to be integrated as a standard in fracture management within emergency care services.

Keywords: 4R, Fracture, Traffic Accident