

INTISARI

RINAWATI, A., 2021, STUDI LITERATUR RASIONALITAS, DAN POLA SENSITIVITAS BAKTERI *Staphylococcus aureus* PENYEBAB INFEKSI GANGREN DIABETES MELITUS TERHADAP ANTIBIOTIK, SKRIPSI, FAKULTAS FARMASI UNIVERSITAS SETIA BUDI, SURAKARTA.

Perawatan gangren diabetes dapat dilakukan dengan menggunakan antibiotik. Penggunaan antibiotik harus dilakukan dengan rasional. Pola sensitivitas antibiotik mengetahui antibiotik yang telah resistensi. Tujuan studi literatur ini adalah mengetahui hubungan rasionalitas dan pola sensitivitas antibiotik pada bakteri penyebab infeksi gangren

Penelitian dilakukan dengan metode studi literatur menggunakan jurnal yang diperoleh melalui situs jurnal seperti *search engine Scopus, Google Scholar, Sciencedirect, NCBI, PubMed, Oxford Academic, Cambridge* dan *Sprinkle link* yang dipublikasi antara tahun 2009-2021, diperoleh jurnal sebanyak 13 jurnal hasil ekstraksi dari 99 Jurnal yang ada. Studi literatur ini dilakukan dengan beberapa tahap yaitu, merumuskan masalah, pengumpulan data, ekstraksi data, sintesis data, dan menyusun skripsi.

Hasil studi literatur rasionalitas penggunaan antibiotik yaitu tepat indikasi, tepat obat dan tepat pasien. Antibiotik yang mengalami resisten di beberapa rumah sakit di Indonesia yaitu ceftriaxon, cotrimoxazole, benzylpenicillin erythromycin, ampicillin, kloramfenikol cefoperazone, meropenem, cefixime, gentamicin, ceftazidime,, ciprofloxacin, streptomycin, lincomycin, dan cefotaxim. Mekanisme yang dimiliki bakteri dalam mengembangkan resistensi yaitu dengan cara modifikasi enzimatik, perubahan struktur PBP, produksi protein pompa dan perubahan target antibiotik.

Kata Kunci : Gangren, mekanisme resistensi, rasionalitas, sensitivitas, *Staphylococcus aureus*,

ABSTRACT

RINAWATI, A., 2021, LITERATURE STUDY OF RATIONALITY, AND PATTERNS OF SENSITIVITY OF THE BACTERIA OF *Staphylococcus aureus* CAUSES OF GANGRENE DIABETES MELLITUS INFECTIONS ON ANTIBIOTICS, THESIS, FACULTY OF PHARMACEUTICAL SETIA BUDI UNIVERSITY, SURAKARTA.

Diabetic gangrene can be treated with antibiotics. The use of antibiotics must be done rationally. Antibiotic sensitivity patterns know which antibiotics have become resistant. The purpose of this literature study is to determine the relationship between rationality and patterns of antibiotic sensitivity in bacteria that cause gangrene infection

The research was conducted using a literature study method using journals obtained through journal sites such as *search engines Scopus, Google Scholar, ScienceDirect, NCBI, PubMed, Oxford Academics, Cambridge*, and *Sprinkle link* published between 2009-2021, obtained journals as many as 13 journals extracted from 99 existing journals. This literature study was carried out in several stages, namely, formulating problems, collecting data, extracting data, synthesizing data, and compiling a thesis.

The results of the literature study rationality of antibiotic use is precise indication, appropriate drug and appropriate patient. Antibiotics that are resistant in several hospitals in Indonesia are ceftriaxone, cotrimoxazole, benzylpenicillin erythromycin, ampicillin, cloramfenicol cefoperazone, meropenem, cefixime, gentamicin, ceftazidime, ciprofloxacin, streptomycin, lincomycin, and cefotaxime. The mechanism that bacteria have in developing resistance is by enzymatic modification, changes in PBP structure, pump protein production, and changes in antibiotic targets.

Keywords: gangrene, resistance mechanisms, Rationality, sensitivity, *Staphylococcus aureus*,