DOI:10.31557/APJCN.1985.20250806

EDITORIALS

The Hidden Dangers of Chloramphenicol: Balancing Affordability with Patient Safety

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Asian Pac J Cancer Nursing, 7-8 Submission Date: 06/18/2025 Acceptance Date: 07/17/2025

Madam, chloramphenicol is a potent antibiotic in a class of antimicrobials that inhibit protein synthesis. It has broad-spectrum antibacterial activity against gram-negative and positive bacteria. Due to its affordable price, it is an attractive first-line treatment option for children in underdeveloped countries. Early studies suggested that the drug is strictly bacteriostatic but now proven that this has bactericidal activity also against H. influenzae and streptococcus pneumoniae [1].

It is used to treat superficial eye infections such as bacterial conjunctivitis and otitis external it has also been used to treat cholera, typhoid fever, and other life-threatening conditions, especially caused by Haemophilus influenza. However, chloramphenicol is not completely free of shortcomings; it is known to commonly cause skin rash, fever, dyspnea mild depression and hallucinations.

A study suggests Chloramphenicol has bactericidal activity against Neisseria meningitis but this is not achievable without hematological side effects [1].

A study published that the use of chloramphenicol drug is associated with reversible bone marrow depression, aplastic anemia, and leukemia [2].

In 1949 SMADEL made a statement that the presence of nitrobenzene radical in the structure of chloramphenicol led to suspicion that the drug might be toxic to the hematopoietic system. In 1967 best analyzed 408 cases of chloramphenicol-induced aplastic anemia reported to the Register of blood Dyscrasias of the American Medical Association [3]. Patients also show a high incidence of having acute leukemia [3].

A 1981 study conducted by H M Feder Jr et al. The use of chloramphenicol is limited by its toxicity. The gray baby syndrome occurs in premature and newborn infants receiving a high or unmodified dose of chloramphenicol [4].

It has also been associated with vision loss [5]. and as of 2017, the European Medicines Agency (EMA) moved to prohibit the use of chloramphenicol eye drops in children under 2 years of age [6]. However, chloramphenicol is still very much in use in many developing countries, as it is cost-effective.

The drug is still being used in Pakistan due to its affordability and physicians must exercise extreme caution while considering this drug due to its severe side effects and further risk of gray baby which is an extremely fatal condition in infants this needs strict guidelines for pediatric patients. Our physicians should use different alternatives to ensure patients' safety.

Disclaimer

None.

Conflict of interest

None.

Funding disclosure

None.

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of guidance over use in under 2s.