

Challenges compromising safety of short-lived medical radionuclides during transport in developing countries

The safe transport of short-lived medical radionuclides, such as Fluorine-18 labelled compounds, is critical for the delivery of effective nuclear medicine services. In developing countries such as Kenya, several safety-related challenges compromise the integrity of this process. Inadequate regulatory frameworks, limited technical expertise, and weak enforcement mechanisms hinder the consistent application of international safety standards. Infrastructural shortcomings such as unreliable transport networks and the absence of certified radiation-shielded vehicles increase the risk of delays and unintentional radiation exposure. Additionally, a shortage of trained personnel across both regulatory agencies and transport operators contributes to operational errors and lapses in radiation protection protocols. The time-sensitive nature of these radionuclides further compounds safety concerns, as any delay in transport may lead to ineffective dosing and elevated exposure risks. This paper aims to identify and analyze the key safety challenges affecting the transport of short-lived medical radionuclides in developing countries, with the objective of highlighting critical gaps and proposing strategies to enhance safe handling, transport conditions, and regulatory compliance.

Country or International Organization

Instructions

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