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Behavioral Drivers of Radioactive-Material Delay and Denials: Insights from Prospect Theory

Delays and denials of radioactive materials pose serious challenges, impacting their beneficial applications, particularly in healthcare, industry, and other sectors. This poster explores the key factors causing such delays and denials, emphasizing the role of human psychological behavior. Additionally, it offers practical tips to help reduce these issues and ensure the timely and effective use of radioactive materials.

Delays and denials in the shipment and use of radioactive materials—especially radioisotopes for diagnostics, therapy, industrial gauging, sterilization, and research—undermine time-critical applications and generate cascading costs for patients, providers, and supply chains. This poster examines why delays and denials occur—and how to address them—by focusing on a human psychology factor that is often overlooked. This poster synthesizes the technical, regulatory, and behavioral contributors to these disruptions, with particular emphasis on the human psychological dynamics that shape gatekeeping decisions throughout the materials' lifecycle. The methodology of the paper is a questionnaire, mainly from stakeholders. This poster synthesizes the technical, regulatory, and behavioral contributors to these disruptions, with particular emphasis on the human psychological dynamics that shape gatekeeping decisions throughout the materials'lifecycle. Drawing on case reviews, stakeholder interviews, and a rapid scan of guidance from competent authorities, we map choke points. Organizational culture amplifies these tendencies when incentives penalize false approvals more than harmful delays, and when training emphasizes hazard without balancing benefit. In conclusion, safety and speed can coexist. By making compliance legible, aligning incentives, and keeping the human stakes visible, we can cut needless delays and denials. That means more patients treated on time, more reliable industry processes, and smoother science—without compromising the safeguards that keep everyone safe.

Country or International Organization

Instructions

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