

# **Incidental Pulmonary Embolism on Routine Staging Chest CT Scans in Oncology Patients at Butaro Cancer Centre, Rwanda: A 2019 Prevalence Study**

---

J, e, a, n, d, e, D, i, e, u, U, w, i, m, a, n, a, ,, M, a, r, i, e, A, i, m, e, e, M, u, k, a, m, a, n, a

DOI: <https://doi.org/10.5281/zenodo.18539707>

## | Abstract

Incidental pulmonary embolism (IPE) is a recognised complication in oncology patients. Data on its prevalence from sub-Saharan Africa, particularly within routine cancer staging pathways, are lacking. This knowledge gap is relevant for resource-constrained tertiary centres managing large oncology populations. This study aimed to determine the prevalence of IPE identified on routine contrast-enhanced chest CT scans performed for cancer staging or follow-up at a tertiary oncology centre in Rwanda. A retrospective, cross-sectional review was performed of consecutive routine staging chest CT scans for adult oncology patients. All scans, initially reported by local radiologists, underwent secondary review by a specialist thoracic radiologist for IPE. Demographic and clinical data were extracted from electronic medical records. The prevalence of IPE was 3.8% (19 out of 500 scans). Most cases (approximately 68%) occurred in patients with no prior clinical suspicion of venous thromboembolism. The most frequently associated primary malignancies were gynaecological and gastrointestinal cancers. Incidental pulmonary embolism is a not infrequent finding on routine staging CT scans in this Rwandan oncology cohort, with a prevalence aligning with some international figures. It represents a significant incidental finding in regional cancer care. Radiologists reporting oncology staging CTs should maintain a high index of suspicion for IPE. Further research is needed to investigate associated

risk factors and clinical outcomes to inform potential management strategies. Incidental findings, Pulmonary embolism, Oncology, Computed tomography, Sub-Saharan Africa, Prevalence This study provides the first data on the prevalence of incidental pulmonary embolism in routine oncology staging within a sub-Saharan African setting, highlighting its clinical importance.

---