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Objective of your solution: (Briefly define the primary outcome of your solution to this challenge):

To establish unified, secure, and patient-centered oncology data stewardship that captures the complete clinical, molecular, and economic burden of cancer care across healthcare settings and to support evidence-based clinical decision-making, real-world research, and precision oncology through standardized interdepartmental, operable data collection, ethical data sharing, reducing financial toxicity, optimizing healthcare resource allocation, and improving equitable cancer care outcomes at institutional and population levels.

Describe your solution/proposal: Provide a detailed account of your solution/ proposal to this challenge. You could type your solution/ proposal here. (Disclaimer: Solution/proposal should not exceed more than 300 words):

Problem statement: Mr. X, a 56-year-old farmer diagnosed with metastatic colorectal cancer, travels 120 km every 2 weeks for chemotherapy at a government cancer center. While his treatment costs are documented, the hidden burden of cancer remains invisible, loss of daily wages, transportation charges, nutritional support costs, caregiver burden, repeated hospital visits, and treatment delays. His pathology reports, molecular testing results, pharmacy records, billing information, and insurance exist in separate systems. Oncologist struggles to obtain a complete picture of his journey; researchers cannot accurately evaluate outcomes, and policymakers underestimate the true economic burden of cancer.

Solution: CARENET oncology addresses this gap by transforming fragmented data into actionable intelligence while protecting patient privacy

- C- Capture: A unique oncology ID links clinical records, Histopathology reports, pharmacy, molecular reports, data, and patient outcomes.
- A-Assess both direct and indirect cancer costs: drugs, travel, wage loss, nutrition, caregiver burden, hospital admission, treatment delays
- R-Responsible data stewardship by undergoing deidentification, encryption, consent verification, and ethical sharing.
- E- Empower clinical care by real-time dashboards for treatment history, biomarker profiles, toxicity monitoring, follow-up alerts, precision oncology trials, and recommendations.
- N-Network intelligence - pharma partners like Roche can help in collecting data from Institutes and contribute anonymized data to a central oncology registry, generating real-world evidence on survival, treatment patterns, and access disparities.
- E- Economic insights reduce financial toxicity, NGOs support, social assistance programs
- T-transform health care policy -cost effective analysis, resource allocation, national cancer burden estimation, biomarker prevalence mapping, healthcare infrastructure planning.

CARENET Oncology converts Fragmented cancer information into a secure national learning health system where every patient encounter contributes to better care, stronger research, smarter policy decisions, and reduced financial hardship.

Every cancer journey counted. Every data point protected. Every decision informed
