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Panacea Journal of Medical Sciences

Journal homepage: https://pjms.in/

Editorial

Laboratorians are from Venus, clinicians are from Mars: The imperative of communication in patient-centred diagnostics

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Received: 01-07-2025; **Accepted:** 26-07-2025; **Available Online**: 19-08-2025

1. Introduction

In the world of modern medicine, the patient journey is increasingly shaped by a dynamic interaction between the laboratory physicians and the clinicians. The often-cited metaphor, "Pathologists are from Venus, Clinicians are from Mars," reflects a fundamental truth about how differently these two sets of professionals approach diagnosis and management. While both laboratory physicians and clinicians aim for optimal patient outcomes, their divergent orientations—sample-driven versus patient-facing—can sometimes create communication barriers. This narrative review explores the necessity of bridging this gap, focusing on three key aspects: the importance of effective communication by laboratory physicians, the role of standard reporting protocols by pathologists and microbiologists, and strategies to harmonize the contributions of these groups for better healthcare delivery.

1.1. Divergent perspectives, common goals

Laboratory professionals, including pathologists and microbiologists, operate predominantly in analytical environments, interpreting slides, cultures, biomarkers, and molecular data with precision and objectivity.[1] Clinicians, by contrast, are immersed in patient-facing scenarios, often grappling with incomplete data, acute presentations, and the immediacy of decision-making.[2] The disconnect arises not from conflict, but from context.

Clinicians often need swift, interpretable data that can inform bedside decisions, while laboratorians prioritize accuracy, validation, and detailed reporting. This difference in timelines and language underscores the need for a unifying communication model.[3]

1.2. The language of reports: Why communication matters

Pathology and microbiology reports are the primary medium of communication between laboratory and clinical teams. These reports are often highly technical, using terminologies and grading systems that may not be universally understood by clinicians across specialties.[4] Conversely, insufficient clinical history on requisition forms limits the interpretive value of laboratory data.[5]

Miscommunication, or worse—non-communication—can result in diagnostic delays, misinterpretation of results, or inappropriate treatments. A cross-sectional study showed that nearly 30% of clinicians misunderstood key aspects of complex pathology report.[6] These findings highlight a systemic issue that must be addressed through structured reforms.

1.3. Synoptic reporting: A tool for clarity and consistency

Synoptic reporting refers to standardized, template-based reporting that ensures consistency, completeness, and clinical relevance in laboratory outputs. Compared to narrative reports, synoptic formats significantly improve data retrieval, facilitate auditing, and enhance clinician satisfaction.[7]

The College of American Pathologists (CAP) mandates synoptic reporting for several cancer diagnoses, citing

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https://doi.org/10.18231/pjms.v.15.i.2.266-268

improved patient care outcomes. In microbiology, structured formats can streamline information about antibiotic resistance, specimen adequacy, and time to positivity, leading to better infection control.

Synoptic reports reduce ambiguity and ensure that critical information (e.g., tumor margins, lymphovascular invasion, resistance phenotypes) is prominently highlighted. Studies have shown improved interdisciplinary communication and patient care planning following the adoption of synoptic reports in tumor boards.[8]

1.4. The hidden curriculum of silence: When lab physicians are not heard

Laboratory physicians often face a paradox—they make pivotal contributions to patient care but are largely invisible to patients and sometimes peripheral to clinical conversations. This marginalization may begin early, with limited exposure to laboratory professionals during undergraduate clinical training.[9] As a result, young clinicians may underappreciate or underutilize laboratory expertise.

Promoting active involvement of pathologists and microbiologists in clinical rounds, interdisciplinary meetings, and morbidity and mortality reviews can foster familiarity and collaboration.[9] Some academic centers now designate "diagnostic consultants" from the lab to assist in complex cases, improving diagnostic stewardship and reducing diagnostic errors.[10]

1.5. The role of interdisciplinary education

Educational interventions can bridge the communication divide. Interprofessional case-based learning (CBL) and multidisciplinary team simulations have demonstrated significant gains in mutual understanding and diagnostic accuracy.[11] Introducing modules on laboratory communication into medical school curricula—aligned with the Attitude, Ethics, and Communication (AETCOM) components of the CBME—can sensitize future clinicians to the value of laboratory input.[12]

Faculty development programs should also encourage laboratory physicians to refine their communication skills, enabling them to translate complex results into actionable clinical insights. Workshops on report writing, feedback strategies, and structured discussions can be instrumental.

1.6. Technological bridges: from LIS to interpretive comments

Laboratory Information Systems (LIS) can serve as communication conduits, but only when used optimally. Too often, they are passive repositories rather than interactive platforms. Introducing interpretive comments, algorithm-based alerts, and clinician dashboards can transform LIS into decision-support tools.[10]

For example, microbiology reports can include automated comments suggesting empiric therapy adjustments based on sensitivity profiles, while histopathology reports can link to guidelines for management of certain neoplasms. Digital dashboards with color-coded flags for abnormal results can improve visibility and response times.

1.7. Cultural and structural solutions

Communication between clinicians and laboratorians is not only a technical or educational issue—it is also cultural. Hierarchical structures in hospitals may unintentionally downplay the laboratory's role. Cultivating mutual respect through joint quality improvement projects, peer review activities, and co-authored research can alter this dynamic.[13]

Hospital policies should mandate timely dialogue in cases of critical values, ambiguous results, or unexpected findings. Instituting "lab-clinician liaison officers" or routine pathology rounds in clinical departments are practical solutions seen in high-functioning health systems.

2. Conclusion

The metaphor of laboratorians from Venus and clinicians from Mars poetically captures the communication chasm that, if left unaddressed, compromises patient care. Synoptic reporting, active communication, interdisciplinary education, and a shift toward collaborative culture are essential tools to bridge this divide. At its core, the pathology-clinician relationship is one of mutual dependency, and its strength lies in shared language, transparency, and trust. Aligning the celestial orbits of Venus and Mars may be ambitious—but aligning laboratory and clinical practice is both necessary and achievable.

3. Conflict of Interest

None.

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Cite this article: Roy AD. Laboratorians are from Venus, clinicians are from Mars: The imperative of communication in patient-centred diagnostics. *Panacea J Med Sci*. 2025;15(2):266-268.