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Commentary

Importance of Clinical Skills in Internal Medicine in an Increasingly Digital Age

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Even in this fast-evolving technological scenario it cannot be emphasized enough how important clinical skills actually are, in the successful management of patients.

Although there are diagnostic algorithms and artificial intelligence tools which streamline medical processes, the understanding of disease processes that comes with using clinical experience and skills should not be underestimated.

While artificial intelligence can guide in the diagnosis and management of patients, the experience and decision-making of a clinician which is the result of years of clinical training, cannot be replaced. Hence, clinical decision-making based on thorough history-taking and proper physical examination remains the cornerstone in the evaluation and treatment of patients.

Also, it is the very experience and skills of a discerning physician which catches the subtleties that advanced technologies may miss, as an artificial intelligence tool lacks a mind and a thought process, thereby lacking in-depth reasoning which is obtained only through years of clinical training and experience.

It is the clinical acumen of an experienced physician which makes all the difference in the successful treatment of a patient because clinical acumen brings with it judgement, sharpness and insight which are impossible to achieve with artificial diagnostic tools only. With good clinical acumen, a physician can identify subtle symptoms and signs even in an ambiguous clinical situation.

Here, let us take the example of a 28-year-old male who presented with cough and purulent expectoration for the past 3 months, accompanied by occasional blood-streaked sputum. On auscultation of his chest "amphoric bronchial breath sounds" were detected. These are bronchial breath sounds which have a 'metallic sound', akin to 'blowing through a metal pipe'. These are essentially low-pitched bronchial breath sounds with high-pitched overtones, unlike tubular bronchial breath sounds which are high-pitched sounds. This is an indication that the most likely pathology is a thick-walled cavity communicating with a bronchus and that the most likely aetiology in this age-group would be pulmonary tuberculosis. Detecting the 'metallic nature' of the bronchial breath sounds is only possible by an experienced clinician who has years of experience in detecting complex lung sounds and formulating a diagnosis. This is not possible even with advanced digital tools and technologies including artificial intelligence, as correlation of complex physical findings accompanied by sharp clinical reasoning is necessary in order to arrive at relevant differential diagnoses in such cases.

Moreover, good clinical acumen also helps to anticipate potential medical complications well in time to choose the most effective interventions suitable to the case. Also, when a physician applies his clinical judgement with empathy, he fosters a better doctor-patient relationship which again is indispensable in decision-making.

This is more apparent in complicated cases where reasoning and experience take precedence over mere knowledge, as important clinical findings may be indicative of hidden complexities in a seriously ill patient. Moreover, in semi-urban and rural settings where advanced technologies may be unavailable, clinical judgement again serves as the cornerstone in decision-making.

It should be remembered that in actual clinical practice, a physician through his thorough clinical examination, examines the patient in entirety, thereby not missing other disease processes which may otherwise be overlooked. We need to remember that a patient having one illness may also have another ailment, which may be related or completely unrelated to the presenting chief complaint. This can be missed if solely relied on diagnostic tools for diagnosis and treatment decisions.

Hence, in order to have a patient-centered focus, it is essential that the treating physician has the desired clinical skills which may then be complimented by digital tools for the betterment of the patient.

Moreover, the sacrosanct doctor-patient relationship which is central to the treatment of all patients is only possible when the clinician is the primary decision-maker based on his clinical judgement which is ably assisted by digital tools and advanced technology. The faith that a patient has in his doctor cannot be transferred to digital tools and technology, as it is based on a human-to-human relationship which is steeped in empathy and understanding of the patient's problems, be it physical or mental.

Artificial intelligence could pose a hindrance in patient management if patients themselves start to solely rely on AI tools for their diagnosis and become sceptical of the treatment plan provided by their clinician, which is based on years of in-person clinical training and experience. Therefore, while digital tools including artificial intelligence can significantly complement and assist in patient care, patients should refrain from considering medical technologies, however advanced, as their 'personal clinician'.

In conclusion, while digital tools and advanced technologies certainly help in the successful treatment of patients, the clinician with his years of clinical experience and reasoning, needs to be centre-stage for the successful treatment of any patient. Hence, it is not envisaged that the clinician would ever be replaceable in the foreseeable future by digital technology, however advanced it may become.

The clinician will continue to remain at the centre of patient care due to his experience and reasoning capabilities. We must remember that medicine is NOT an exact science! Therefore, clinical reasoning, experience and sound judgement will forever remain the guiding principles in the successful treatment of patients, with all their complexities [1,2].

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