

## PROCEEDINGSSUMMARY

## Symposium on ‘Lower Back Pain: Understanding the Science, Challenging the Myths, and Empowering Our Practices’

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### Overview

Over six hundred million people globally are suffering from lower back pain (LBP), with 80% affected at some point in their lives.<sup>1</sup> In Bangladesh, the age-standardized prevalence rate of LBP is 19.4%.<sup>2</sup> This highlights LBP as a major public health issue impacting quality of life, workforce productivity, and healthcare costs. A multidisciplinary symposium was held on 26th November 2025 at Ibrahim Cardiac Hospital and Research Institute Organization, Dhaka, Bangladesh, to discuss effective management strategies for LBP, involving experts from various medical fields. The symposium aimed to raise awareness among practitioners about the challenges of LBP, evaluate current practices, identify treatment gaps, and propose collaborative prevention strategies for acute and chronic cases, emphasizing the need for interdisciplinary approaches to LBP management.

### Key Thematic Sessions

#### Pain Management

- Pharmacological interventions: The discussion covered the use of paracetamol, NSAIDs, muscle relaxants, opioids, and neuropathic agents. Reports indicate that 34% of the younger adults in Dhaka City use NSAIDs.<sup>3</sup> Indications for facet joint and epidural steroid injections were also analysed.
- Non-pharmacological modalities: Physiotherapy, exercise, and lifestyle changes are cost-effective in low-resource settings.
- Interventional techniques: Analgesic options for LBP are non-specific. If initial medication proves inadequate, diagnostic nerve blocks can be administered. Emerging options like epidural steroid injections and radiofrequency ablation are available, but more resource-intense treatments such as spinal cord stimulators and intrathecal opiate pumps are not still feasible in Bangladesh.

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## Rheumatological Considerations

- Inflammatory aetiologies: Spondyloarthritis, fibromyalgia, and related conditions cause LBP. Adequate history taking is vital to avoid misdiagnosing LBP as spinal compression. A discussion on neuroradiology highlighted imaging techniques, including PET-CT, for diagnosing trauma and degeneration, as well as suspected infections or malignancies.
- Diagnostic limitations: Limited access to advanced imaging and lab facilities hinders early detection. However, plain radiographs are valuable for assessing bony destruction, soft tissue swelling, and spinal stability, making them a cost-effective option, especially in rural areas.
- Therapeutic strategies: Disease-modifying anti-rheumatic agents (DMARDs) and biologics were discussed for spondyloarthropathies, with affordability identified as a significant challenge.

## Urological Perspectives

- Referred pain syndromes: Renal calculi, urinary tract infections, and prostatic disorders were recognized as potential contributors. There is a golden rule that, LBP in a patient with prostate cancer has a metastasis unless proven otherwise.
- Different presentations: LBP mimickers include bladder cancer, which may cause painless urinary retention and pelvic pain. Routine urine analysis and ultrasound examination are recommended for atypical cases with LBP.

## Vascular Surgery

- Growing and ruptured abdominal aortic aneurysms often cause chronic or acute LBP, respectively.
- Vascular claudication causes pain during uphill walking and is relieved by rest. Key evaluations include evaluate peripheral pulses, Doppler tests, and assessing for risk factors like smoking and diabetes to identify vascular causes of leg pain, along with LBP.

## Neurological Insights

- The silent cohort of non-compressive LBP: 30% of patients with cauda equina syndrome (CES)

have normal lumbar MRI scans. They require assessment by neurology and/or urology. In non-compressive LBP, neurological examination in combination with nerve conduction & EMG studies will evaluate function, not anatomy.

- Diagnostic tools: Electromyography (EMG) and nerve conduction study localise lesions provide a timeline of disease, guide therapy and predict the likelihood of functional recovery.
- Need for collaboration with neurosurgeons: Electrophysiological study can identify non-surgical targets, avoiding unnecessary spine surgery. Moreover, they prevent mislabelling patients as ‘functional’ or ‘malingering’. There is a need for more electrophysiological investigations to uncover the hidden biological causes of LBP.

## Non-Surgical Management

- Rehabilitation programs: Evidence behind the efficacy of physiotherapy, complementary acupuncture and rehabilitation services was addressed.
- Community-based interventions: Prof Azad Khan noted that ‘prevention is better than cure’. Public education on ergonomics, posture, diet and exercise could potentially reduce incidence and chronicity of LBP.
- Psychosocial dimensions: The role of mental health in perpetuating pain was emphasized and recommended integrated psychosocial support.

## Neurosurgical Management

- Radiculopathy and neuropathic pain: Lumbar disc herniation and spinal stenosis are major contributors to acute and chronic LBP, respectively.
- Indications for surgery: Urgent surgical decompression is essential for cauda equina syndrome (CES), and patients must be educated on the risks of permanent loss of bladder, bowel, and sexual function to ensure a timely MRI scan and refer to a neurosurgical unit. Progressive neurological deficits, rather than refractory pain, warrant surgical intervention. In resource-poor settings, holistic non-interventional pain management is crucial.

- Surgical techniques: Microdiscectomy and laminectomy for compressive disease, along with spinal fusion for lumbar instability, were highlighted as appropriate treatments. The discussion also included the risk-benefit ratio analysis of disc-sparing microdiscectomy for unilateral lumbar disc prolapse vs. aggressive discectomy. Some neurosurgeons also addressed the emerging technique of minimally invasive endoscopic discectomy and emphasized its long-term outcomes, including potential recurrence rates.
- Neurorehabilitation: Ongoing physiotherapy, back strengthening, and adherence to exercises are beneficial. In cases of CES post-surgery, monitoring for UTIs, clean intermittent catheterization, and potential use of electrical stimulation for chronic bladder dysfunction are important.
- Systemic challenges: Limited neurosurgical expertise and high cost of treatment were highlighted as barriers to equitable access to surgical interventions.

### Recommendations

Promotion of a national LBP guideline, based on prevention strategies, evidence-based treatment outcomes, novel interventions and cost-effectiveness of therapy.

### Conclusion

The symposium has facilitated collaboration and established connections to form a working group across various disciplines to develop a National Guideline for Lower Back Pain Management in Bangladesh. This guideline will be tailored to the country's demographic and socio-economic context, ensuring evidence-based, practical strategies for the healthcare system.

### Justification of the guideline

Bangladesh is categorized as a lower-middle-income country (LMIC). Our objective is to establish

comprehensive guidelines for the prevention, early diagnosis, and treatment of low back pain (LBP). By achieving this, we strive to help individuals remain in the workforce, generate socio-economic benefits, and potentially minimize the need for surgical interventions, which pose inherent risks.

### Author contributions

Conception and development of the idea MNH, KHI, AKMA, AS, RK

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