Curriculum Vitae

Dr Ganesh Bavikatte MBBS, MD (Medicine), FRCP (London), FEBPRM (Europe)

Present Posts:

- **Consultant and Clinical Lead** Neuro Rehabilitation Medicine, The Walton Centre NHS Foundation Trust Cheshire and Mersey Rehabilitation Network, Liverpool.
- Clinical lead North West Assistive Technology
- Clinical Lead Major Trauma Rehabilitation
- Honorary Senior Clinical Lecturer, School of Medicine, Liverpool University
- Chair of National SIGEAT, British Society of Rehabilitation Medicine

Professional Qualifications:

1998	MBBS
2002	MD Medicine
2007	MRCP (UK), MRCP (London)
2010	ITQ Level 2 for IT users, NHS Manchester
2011	PGCE course workplace based postgraduate medical education/ accredited clinical supervisor, North Western Deanery.
2012	Medical Leadership in Practice (MLiP course), Manchester Business School/ North Western Deanery
2012	FEBPRM (European Board- Physical Medicine and Rehabilitation)
2012	CCT (Rehabilitation Medicine), UK
2014	Cardiff University Law School- Medico Legal Foundation certificate (CUBS)
2016	FRCP (London)

Memberships:

General Medical Council (GMC) Medical Defence Union (MDU) British Society of Rehabilitation Medicine (BSRM) Royal College of Physicians (London) British Medical Association (BMA) Member of Association of Personal Injury Lawyers (APIL)

Professional Experience

I am a consultant, honorary senior clinical lecturer and clinical lead in rehabilitation department at the Walton Centre in Liverpool.

I specialise in traumatic brain injury, polytrauma rehabilitation, neuro rehabilitation and stroke rehabilitation. I am an expert in the use of botulinum toxin for the treatment of spasticity. My subspecialty interests include hyperacute rehabilitation, polytrauma rehabilitation, stroke rehabilitation and neurorehabilitation following complex injuries. I run neurorehabilitation, spasticity and also combined neurotrauma clinics with neurosurgeons, psychology and charity organisations. I manage patients in Level 1 hyperacute and Level 1b specialist rehabilitation units. We take not only patients with acquired brain and spinal cord injury but also patients with polytrauma and critical illness due to other acute medical and surgical illness. Our service been reported as an exemplary service by a national peer group team. I also have wider experience in managing patients from acute, subacute units and in community settings.

As a clinical lead I am also responsible for day to day smooth running of our service and delivery of specialist rehabilitation as per the national standards.

I am actively involved in undergraduate, post graduate and multi and interdisciplinary teaching, audit and research projects, which have led to posters and publications in international platform to raise the profile of specialist rehabilitation. I have also conducted national and international workshops. I am the author of peer-reviewed publications and participate in professional societies, such as the British Society of Rehabilitation. I am lead investigator for several research projects.

Publications and Relevant Posters

- Boardman A, Bavikatte G. An overview of Prolonged Disorder of Consciousness for the General practitioner" accepted *BJMP* 2020
- Carda S, Invernizzi M, Bavikatte G, et al. Original Article: The role of physical and rehabilitation medicine in the COVID-19 pandemic: the clinician's view European Journal of Physical and Rehabilitation Medicine 19th May 2020 DOI: 10.23736/S1973-9087.20.06317-0
- Carda S, Invernizzi M, Bavikatte G, et al. Letter: The role of physical and rehabilitation medicine in the COVID-19 pandemic: the clinician's view. Ann Phys Rehabil Med 2020; Apr 18 doi: https://doi.org/10.1016/j.rehab.2020.04.001
- Francisco GE, Bandari D, Bavikatte G, et al High clinician- and patientreported satisfaction with individualized onabotulinumtoxinA treatment for spasticity across several etiologies from the ASPIRE study. Toxicon: X September 2020;7: 100040 <u>https://doi.org/10.1016/j.toxcx.2020.100040</u>
- Francisco GE, Jost WH, Bavikatte G, et al. Individualized OnabotulinumtoxinA Treatment for Upper Limb Spasticity Resulted in High Clinician- and Patient-Reported Satisfaction: Long-Term Observational Results from the ASPIRE Study. PM&R 2020 Jan 17 https://doi.org/10.1002/pmrj.12328
- Bavikatte G, opinion article, Post-stroke spasticity care a new approach. European Hospital 11/12/2019 <u>https://healthcare-in-europe.com/en/news/post-stroke-spasticity-care-a-new-approach.html</u>
- Francisco G, Balbert A, **Bavikatte G**, *et al.* A practical guide to optimizing the benefits of post-stroke spasticity interventions with otulinum toxin a: an international group consensus *PM&R* (in Press)
- Jost WH, Bäumer T, Laskawi R, et al. Therapy of Sialorrhea with Botulinum Neurotoxin. Neurol Ther 2019;8(2):273–288 <u>https://doi.org/10.1007/s40120-019-00155-6</u>
- Morgante F, Bavikatte G, Anwar F, Mohamed B. The burden of sialorrhoea in chronic neurological conditions: current treatment options and the role of incobotulinumtoxinA (Xeomin®). *Ther Adv Neurol Disord* 2019; 12:1756286419888601. Published online 2019 Nov 28. doi: 10.1177/1756286419888601

- Francisco GE, Bandari DS, Bavikatte G, et al. The Adult Spasticity International Registry (ASPIRE) Study: Real-World Treatment Utilization and Effectiveness of OnabotulinumtoxinA in Post-Stroke Patients Treated for Spasticity (P5.048) *Neurology* 2018; 90(15 Supplement): P5. 048
- Bell C, Hackett J, Hall B, *et al.* Symptomatology following traumatic brain injury in a multidisciplinary clinic: experiences from a tertiary centre. *Br J Neurosurg* 2018;**32(5)**;495-500
- Francisco GE, Bandari DS, Bavikatte G, et al. Comparison of onabotulinumtoxina utilization across various etiologies of spasticity from the Adult spasticity international registry study: ASPIRE. Ann Phys Rehabil Med 2018; 61: e69
- Esquenazi A, Jost W, Bavikatte G, et al. An examination of real-world onabotulinumtoxina utilization for the treatment of lower limb spasticity: The Adult Spasticity International Registry (ASPIRE) study. Ann Phys Rehabil Med 2018; 61: e68
- Gerard F, Bandari D, Bavikatte G, et al. Comparison of OnabotulinumtoxinA Utilization and Effectiveness across Various Etiologies of Spasticity from the Adult Spasticity International Registry Study: ASPIRE. Mov Disord 2018; 33: S58-S59
- Francisco G, Bandari D, Bavikatte G, et al. Comparison of OnabotulinumtoxinA Utilization and Effectiveness across various etiologies of Spasticity from the Adult Spasticity International Registry Study: ASPIRE, *Neurology* 2018; 90 (15 Supplement): P5. 045
- Francisco GE, Bandari DS, Bavikatte G, et al. Adult Spasticity International Registry Study: methodology and baseline patient, healthcare provider, and caregiver characteristics. J Rehabil Med 2017; 49:659-666
- Francisco GE, Bandari DS, Bavikatte G, *et al.* The Adult Spasticity International Registry (ASPIRE) Study: 1-Year Results (P4. 034), *Neurology* 2017; 88(16 Supplement): P4. 034
- Jost WH, Francisco GE, Bandari DS, *et al.* The Adult Spasticity International Registry (ASPIRE) study: 1 year results. *Basal Ganglia* 2017; 15
- Francisco G, Bandari D, Bavikatte G, et al. Baseline Demographics and Clinical Characteristics of Patients Treated for Spasticity in the Adult Spasticity International Registry (ASPIRE Study) (P3. 296) Neurology 2017; 86 (16 Supplement), P3. 296

- Francisco GE, Bandari DS, Bavikatte G, et al: Poster 66: The Adult Spasticity International Registry (ASPIRE) Study: Treatment Utilization Patterns in Patients Treated for Both Upper and Lower Limb Spasticity. PM&R 09/2017; 9(9):S158., DOI:10.1016/j.pmrj.2017.08.023
- Francisco GE, Bandari DS, Bavikatte G, et al: Poster 79: The Adult Spasticity International Registry (ASPIRE) Study: 1-Year Results. PM&R 09/2017; 9(9):S162-S163
- Francisco GE, Bandari DS, Bavikatte G, et al: Adult Spasticity International Registry Study: methodology and baseline patient, health care provider, and caregiver characteristics. J Rehabil Med 2017; 49(8): 659-666. DOI:10.2340/16501977-2245
- **Bavikatte G**. Health Awareness Rehabilitation Robotics and Virtual Rehab: How Far Should We Go?
- Shippen C, Bavikatte G, Mackarel D. The Benefit of Botulinum Toxin A in the Management of Central Post Stroke Pain: A Case Report. J Neurol Stroke 2017; 6(6): 00218. DOI: 10.15406/jnsk.2017.06.00218
- Jost WH, Francisco GE, Bandari DS, *et al*: The Adult Spasticity International Registry (ASPIRE) study: 1 year results. *Basal Ganglia* 05/2017; 8:15., DOI:10.1016/j.baga.2017.02.044
- Francisco GE, Bandari D, Bavikatte G, et al: Poster 281 The Adult Spasticity International Registry (ASPIRE Study): Baseline Demographics and Clinical Characteristics of Patients Treated for Spasticity. PM&R 2016; 8(9):S251-S252., DOI:10.1016/j.pmrj.2016.07.454
- Turner-Stokes L, Bavikatte G, Williams H, et al. Cost-efficiency of specialist hyperacute in-patient rehabilitation services for medically unstable patients with complex rehabilitation needs: A prospective cohort analysis. *BMJ* Open 2016; 6(9); e012112 doi:10.1136/bmjopen-2016-012112
- **Bavikatte G**. Neurotrauma Book Review. Advances in clinical neuroscience & rehabilitation: *ACNR* 2016; **16**: 33
- **Bavikatte G**. Baseline Demographics and Clinical Characteristics of Patients Treated for Spasticity in the Adult Spasticity International Registry. *Neurology* 2016; **86(16)**: 296
- Bavikatte G et al. Poster Presentation. Major Trauma Rehabilitation Experience from the Walton Centre. Mediterranean Congress, Montenegro, 2013

- **Bavikatte G**, Mavrianou A, Sacco P, *et al.* Sensory responses to real vs placebo TMS in healthy subjects and patients with chronic neuropathic pain. Edinburgh Pain Conference, Edinburgh; 09/2016
- Bavikatte G. Prevalence, Causes and Consequences of Sleep Disorders in Acquired Brain Injury. 9TH ISPRM WORLD CONGRESS – BERLIN, GERMANY 19 June -23 Jun 2015; 07/2014
- **Bavikatte G**, J Kulkarni. "Fat Graft in Upper limb amputee" *IJPO* 2012; **24(1)**:50-51
- **Bavikatte G**, Hassoon A. "Autonomic dysfunction in GBS". Published online October/ November, ACNR, 2011
- **Bavikatte G,** Hassoon A, Eshiet MU-A. "Tersons syndromeexperience of two patients in neurorehabilitation unit". *IJPMR* 2012;**22(3)**:102-4
- **Bavikatte G,** Sit P, Hassoon A. "Management of Drooling of Saliva", *BJPRM* 2010;**1**:1-10
- **Bavikatte G**, Gaber T. "Management of Spasticity in General Practice" *BJMP* 2009; 2(3):29-34
- Bavikatte G. "Case Studies in Neurological Rehabilitation" ACNR 2009;9(3):18
- **Bavikatte G**, Gaber T, Eshiett MU-A. "Posterior Reversible Encephalopathy Syndrome as a complication of Guillain-Barre Syndrome". *J Clin Neurosci* 2010;**17(7)**:924-6
- M.D THESIS "Estimation of Left Ventricular Mass In hypertensive Patients by Echo and Its Correlation with ECG" Dec 2001

<u>Books</u>

• Editor and main author

Bavikatte et Al, Spasticity: Early and Ongoing Management. Common Patterns, Botulinum Toxin Treatment, Ultrasound Localisation, Post-treatment Exercises. 1st Edition June 2017.

Book Reviewed by Dr Boardman, ACNR 2020;19(3):23

Editor and main author

Bavikatte et AI, Drooling of Saliva: Salivary glands, Management options, Botulinum toxin, Ultrasound localisation- 1st Edition, 2019

 Co-Editor and Co-Author of the Book
"A Practical Approach to Interdisciplinary Complex Rehabilitation" Elsevier Publication (work in progress).

National Roles

- Member of national clinical reference group specialist Rehabilitation 2013-2018
- Chair of Specialist group for assistive technology British Society of Rehabilitation Medicine

Guidelines and International Consensus

- National guidelines development group "Spasticity in adults: Management using botulinum toxin 2nd Edition. Royal college of Physicians/ BSRM 2017-2018
- **Traffic light system-** worked with internationally leading experts to develop "Early warning scoring system for spasticity". This is tool for earlier prediction, identification and management of spasticity following stroke.2018-2019
- **ToxNet group** developing an international consensus statement to improve care and service for patients with spasticity, 2017- ongoing

Research and Innovation

I undertake several research and innovation projects in the field of rehabilitation. This includes

- Principle investigator for **ABOLISH** An international, multicentre, prospective, observational study. 2020- ongoing
- UK Chief investigator for **ASPIRE** An international, multicentre, prospective, observational study at selected sites in North America, Europe, and Asia. 2015-2017.
- UK Chief investigator for **PATTERN** Multipattern treatment of upper and lower limb spasticity following stroke and TBI with Inco botulinum toxin. 2019- ongoing.
- Principal investigator for TONiC-Stroke (Trajectories of Outcomes in Neurological Conditions) pilot project, 2018-2019.
- Principal investigator for Brain computer interface study, 2019-ongoing

- Principal investigator for Guided Self-rehabilitation for long term management of spasticity, Pilot project, 2015-2016.
- Co-investigator for ReMemBrIn Study- study of memory problems after Traumatic Brain injury, 2014-2016.
- Supervising investigator for MRes Clinical Sciences (CNCS) project: Prevalence, Causes and Consequences of Sleep Disorders in Acquired Brain Injury, Liverpool University, 2014
- Innovation projects: Started and lead project VERA (Virtual Engagement Rehabilitation Assistant), is combination of Artificial Intelligence, Virtual reality, Interactive gaming and personal assistant. VERA provides personalised support to patients throughout rehabilitation journey, 2018- ongoing.

Teaching and Training

- I set up or lead- specialist training courses in regional, national and international platforms
- I set up and successfully run on regular basis "Liverpool spasticity course" and "Anatomy Training", a cadaver-based training course for clinicians managing spasticity.
- Regularly not only attend but also present / teach in local, regional, national and international meetings
- I run Rehabilitation Medicine and assistive technology courses and training on a regular basis
- **Reviewer of Journals:** Peer reviewer for many international rehabilitation Journals

Medico Legal Training

- Expert Medico Legal report writing, Manchester, 11 July 2013
- Cardiff University Law School- Medico Legal Foundation Certificate (CUBS)- 2013-2014