

My Experience As A Sports Physician In Italy: What Are The Differences?

The Concept of Maximal Functional Recovery

As a Sports Physician, I always had a keen interest in Sports Rehabilitation by way of helping patients attain maximal functional recovery. For this reason, I decided to pursue my interest in Sports Injury Rehabilitation and Prevention at the Isokinetic Medical Group in Italy.

I came upon the Isokinetic Medical Group via their renowned annual Sports Medicine Isokinetic Conferences. The Isokinetic is a medical group established in 1986 in Bologna, Italy and is recognised as FIFA Medical Centre of Excellence. There are currently seven clinics in Italy with one clinic in London. They consist of an international team of sports medicine experts which includes sports medicine doctors, sports scientists, hydrotherapists, physical reconditioning specialists, movement specialists and physiotherapists. I was fortunate to be attached to three of its centres namely Isokinetic Milano Centro, Isokinetic Milano Navigli and Isokinetic Bologna.

The medical group practices five phases of rehabilitation being;

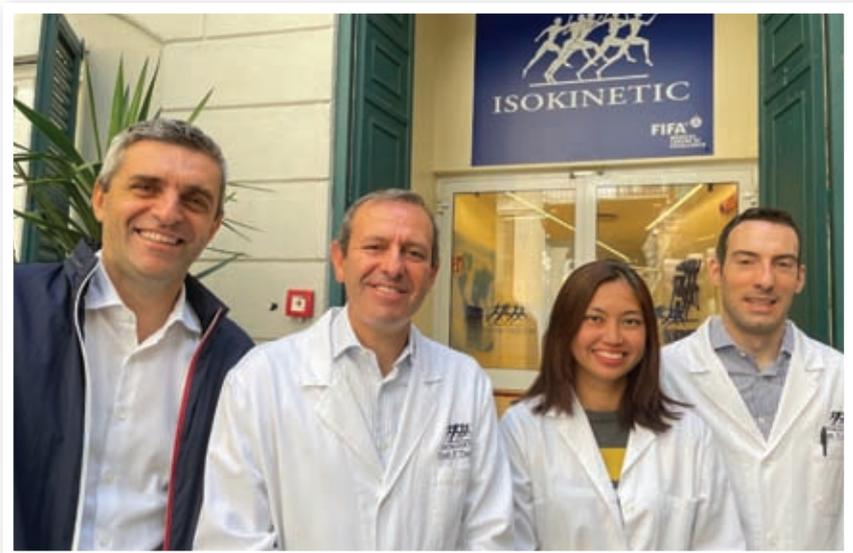
Pain Control, Recovery of Range of Motion with Flexibility, Recovery of Strength, Recovery of Coordination and Recovery of Specific Technical Movements all of which is similar to the rehabilitation concepts practiced by Sports Physicians here in Malaysia. However, this is where the similarities end.

The first difference would be the uniformity of the practiced

rehabilitation phases across all the Isokinetic Centres with each phase having set targets with clear clinical and objective evaluation for progression to the next phase.

The clinic set up and practices do not differ much in terms of consultations, use of musculoskeletal ultrasound,

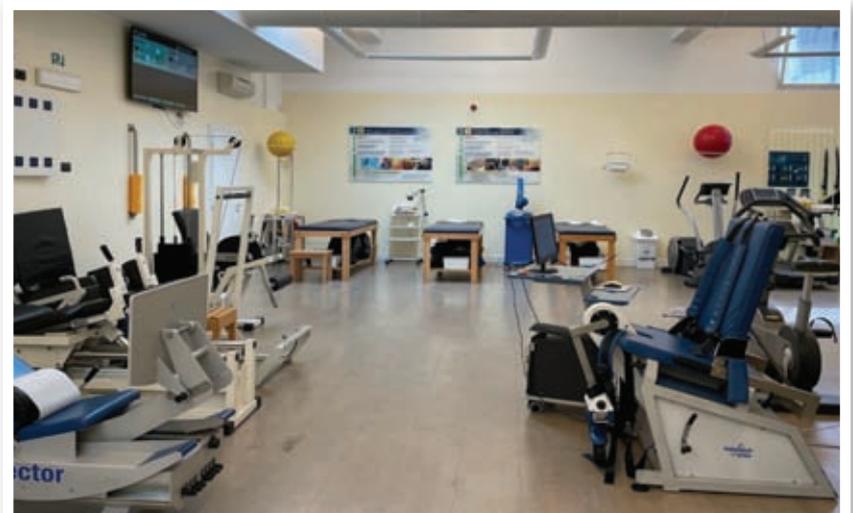
..... continue on page 19



Clinic team; with fellow sports physicians and managing director of Isokinetic Milano.



Dr Pabrinder Kaur, Sports Physician, Hospital Kuala Lumpur



The Rehabilitation Gym

injections and Isokinetic Testing. The main difference would be the advantage of having objective functional evaluation test namely the Movement Analysis Test (MAT Test). The MAT Test is a biomechanical analysis on six movements through high-speed cameras, force platform (with 3D feedback) and software conducted in a space called the Green Room. This test gathers information on motor patterns to identify incorrect or potentially high-risk movement patterns with the aim to improve movement patterns with neuromotor training for injury prevention. The MAT test is conducted by the Sports Physician and repeated after corrective training.



The Indoor Pool with hydro-therapist at Isokinetic Milano Centro

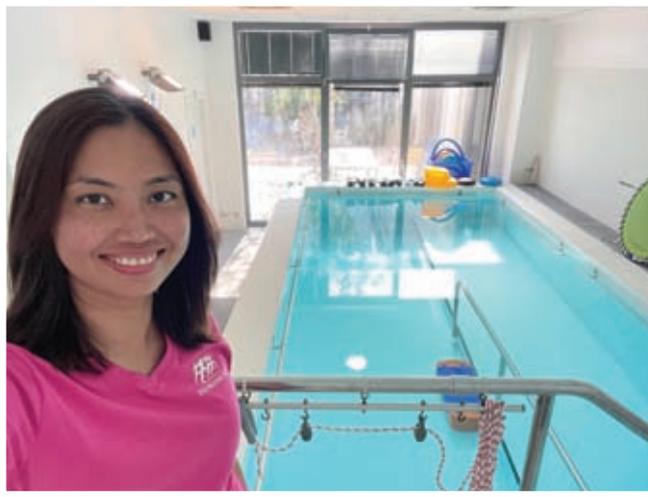
The next difference is the rehabilitation facilities available at the Isokinetic Centre in which recovery takes place in four distinct places; the Indoor Pool, the Gym, the Green Room and on the Field. There is a clear delineation on where each phase of rehabilitation takes place and on the fundamental part of the rehabilitation program that is carried out in each of these places. This particular approach characterises and distinguishes the centre from existing rehabilitation strategies in our setting.

Although sports physicians have the knowledge and skills to carry out each of the targeted exercises in each place of rehabilitation, our primary care remains in the clinics. Therefore, the existence of support staff with expertise in specific rehabilitation phases carried out at each of the distinct places of rehabilitation is of paramount importance. During my attachment, I had the rewarding experience of being placed in all four rehabilitation facilities within the centre. I started off with the Rehabilitation Gym, headed by a physiotherapist for control of pain, swelling, recovery of range of motion, flexibility, strength,

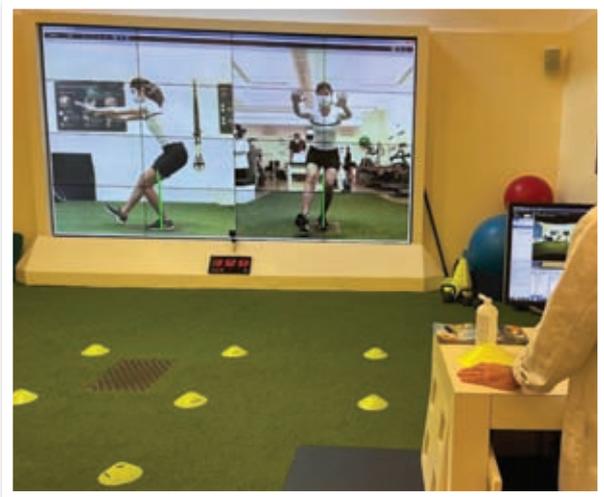


The indoor Pool at Isokinetic Milano Centro

..... continue on page 20



The Indoor Pool at Isokinetic Milano Navigli.



The Green Room where MAT Test and neuromotor training is done using biomechanical feedback.

endurance and co-ordination which is somewhat similar to the role of physiotherapists here.

Once again, the similarities in sports rehabilitation ends here as we progress through to the other places of recovery. In the Indoor-Pool, headed by a hydro-therapist with expertise in Movement Science, Motor control and Posturology, recovery is done by targeted exercises to regain mobility, strength and coordination. This is followed by rehabilitation in the Green Room which is equipped with the latest technology including a force platform and a large LED screen for biomechanical analysis and feedback to conduct neuromotor exercises, movement awareness, correction of bad movements, prevention of re-injury with recovery of maximum strength, proprioception and coordination.

Exercises and training in the Green room and on the Field is conducted by a specialized therapist from a varied background of sports science, movement science, with expertise in strength, conditioning, functional, performance and neuromotor training. On the field, is where recovery of daily activities or sports specific movements for all types of patients is carried out,

..... continue on page 21



The Green Room where the MAT Test and Neuromotor training exercises is done.





On the Field where the final phase of rehabilitation takes place

occasionally with the use of on-field rehabilitation GPS monitoring. Besides the Isokinetic being a one-stop centre for integrated sports and functional recovery rehabilitation, patients' recovery programmes conducted through each phase of rehabilitation with specific exercises done is documented in detail on an online software. This creates a direct link between the doctors and therapists, allowing the attending Sports Physician to view a patient's progress in detail whilst also allowing the therapists access to patient's clinic assessment and new plan or progress of treatment. This creates a close understanding with the patient's best recovery path in mind.

To conclude, the concept of Sports Rehabilitation is not only for a sports person or an elite athlete. It mainly caters for the general population with an aim of returning to full functional daily activities with good physical conditioning in the absence of pain and the prevention of re-injury.

Can we bring this concept to our current setting? Focussing on the public sector, the limitations that may exist would be the presence of facilities such as a dedicated indoor pool and a biomechanically equipped Green Room. However,

we can still conduct the specific exercises, in particular the Green Room exercise training programs. Most importantly, in my opinion is the presence of dedicated therapists or support staff with specific exercise expertise in each place of rehabilitation. We do have qualified therapists from varied backgrounds such as sports science working in different settings in Malaysia. If we could find a way to have a collaboration amongst sports physicians, post-basic sports medicine trainers, sports scientists and physiotherapists, this could pave a way for us to successfully integrate and achieve the concept of maximal functional recovery for all our patients.

My experience as a Sports Physician abroad has been extremely rewarding and valuable. I sincerely hope more Sports Physicians and therapists with interest in injury rehabilitation would take up training abroad to allow more facilities in Malaysia to provide a comprehensive injury rehabilitation and prevention program for maximum functional recovery on par with international standards.

Dr Pabrinder Kaur
Sports Physician,
Hospital Kuala Lumpur



On the field with specialized field rehabilitation therapist.