

## Editorial

### The Art of Motorcycle Medicine

May's edition of the journal coincides with the largest annual sporting event in Northern Ireland, the North West 200 (NW200). The event was first held as a 200 mile long race in 1929 under the auspices of the Derry and District Motor Club. At that time, it was a smaller, companion event to the well-established Ulster Grand Prix (UGP).<sup>1</sup>

The race relocated to its present north coast location in 1964 and has grown in stature until it is now estimated that 100,000 visitors attend the events associated with the race. Arlene Foster, Tourism Minister in 2009, calculated the direct and indirect economic benefits to the province at about £5,000,000 per year.<sup>2</sup>

Unlike the "Formula One" events of the motorcycle world such as FIM World Superbikes and MotoGP, motorbike events in Northern Ireland such as the NW200 and UGP occur on closed public roads and not specially-built circuits. There is no doubt that this exposes the riders to hazards that are minimised on circuits but "road racing" although seen as controversial by some,<sup>3</sup> remains popular with both crowds and riders.

So, how can one provide best medical care to riders capable of 200 mph+ on the longer stretches of closed road courses (a lap of the current NW200 course is 9 miles), isolated from ready access to traditional medical services?

About 25 manned first-aid posts are located at strategic points around the course with a voluntary service ambulance present at around half the posts. "On the ground" medical response is provided by a team of doctors, paramedics and nurses who are in radio contact with the chief medical officer in the pits, race control, each first-aid post and each other. Close contact is maintained with police, fire service and Northern Ireland Ambulance Service who have no ready access to the interior of the course when "bikes are on circuit". The medical response is mobile with at least two motorbike doctors and 2 rapid response vans driven by paramedics able to respond to any incident on track or within the closed area. The first-aiders use a pre-arranged coding system to relay information on number of casualties and triage information.<sup>4</sup> Reliable radio communication is vital and is provided by RAYNET – the Radio Amateurs Emergency Network.

The presence of a van on the course would not be welcomed by riders going at full tilt, so often the motorbike doctors are the first to respond to an incident. The doctors have been trained in race riding, wear distinctive orange helmets with full race leathers and carry a comprehensive range of equipment in orange backpacks, belts and pouches to distribute weight evenly when cornering (about 15kg of kit

is carried on the person!). A reflective "slow down" marker flag covers the rear number plate. The racers and marshals are familiar with medical bikes on the circuit and don't find this disruptive. The doctors follow behind the racers for the first segment of the first lap to cover start incidents then peel off to their posts around the course.

The rapid response vans use side roads off course to get close to an incident, but will only access the course if the race is stopped (red flag) and it is safe to proceed onto the course as determined by race control and marshals.



Fig 1. MCUI (UC) medical team in the 1980s. From left to right; Denis Browne, Fred MacSorley, David McManus and Ian Gibson.

Prior to the modern era, things were somewhat different. Fred MacSorley recalls that the first motorbike doctor was actually a competitor – "a Dr Marty Breslin, who was a public health doctor from Lurgan. Marty was known to take some kit out on his bike to attend serious incidents on an informal basis."<sup>5</sup>

The concept of a mobile response was pioneered in the mid 80's by Drs Sam Tanner and David McManus, Dr. Fred MacSorley and paramedic, Mr. Denis Browne joined shortly afterwards. The mobile radio technology to support the team was introduced by Mr. Ian Gibson of RAYNET (Figure 1).

The idea of a multidisciplinary team providing trauma care was revolutionary in the 1980s and complex life-saving procedures such as roadside thoracostomy for tension pneumothorax and surgical airways were performed.

Skill in performing medical interventions at the roadside requires extensive training and although the team benefits from a wide range of disciplines amongst its membership, all are encouraged to join the British Association of Immediate Care (BASICS) and take the Pre-Hospital Emergency Care (PHEC) course which emphasises flexible team working and communication. That communication must extend to the receiving hospitals as well as emergency services operating

at the boundary of the closed circuit – The Coastguard had to be called in to assist one year at the NW200 when a rider left the course and went over a cliff between Portrush and Portstewart.

There were two major turning points in the team's history according to Dr MacSorley. The first was the incorporation of paramedics to work alongside doctors at the roadside long before that became fashionable in N.I. and the second being the pre hospital deployment of doctors skilled in anaesthesia. Motorbike doctor, Mark Sheridan, provided on-site anaesthetic services in the 90s and for the past 12 years, Dr John Hinds has fulfilled this role alongside enhanced clinical governance and education in the team structure.

As speeds get ever faster and racing technology develops, new problems emerge: the aerodynamic "speed hump" recently incorporated into the riders' leathers to improve aerodynamic profile, curves the upper spine and neck of the supine patient making it difficult to manage the airway and cervical spine. Team members have published their experience of managing this and other uniquely pre-hospital problems as part of the cycle of audit and performance improvement.<sup>6,7</sup>

Being a part of the Motorcycle Union of Ireland (Ulster Club) medical team offers a unique insight into the practice of medicine outside the four walls that normally constrain us. A very different environment from clinic appointments and

signing off results! If you run across the team on duty, wish them; "A quiet day and good racing!"

John Purvis, Hon. Editor.

#### ACKNOWLEDGEMENTS

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