

# AMBULANCE SERVICE ON COURSE FOR NEXT LEVEL OF TRAINING

Macartan Hughes, a member of the National Ambulance Service (NAS) Paramedicine Directorate, talks to Derek Nagle about the “dramatic changes” he has seen in the level of training programmes for ambulance service personnel over the decades, with plans now in the pipeline to recommence a community paramedic programme and the future introduction of a critical care paramedic course.

Since 2017 the National Ambulance Service College (NASC) has offered the paramedic programme in affiliation with its academic partner – the School of Medicine at University College Cork.

The current annual target for student paramedic intakes is between 175 and 196 with an additional intake of up to 60 EMT students per year. In the coming years the number of recruits to be trained is planned to increase significantly with the NAS staff compliment planned to double by 2027.

Initially the programme was a National Framework of Qualifications (NFQ) Level 7 Diploma but since 2019 it has become an NFQ Level 8 Bachelor of Science (Honours) programme. The four-year Bachelor of Science (Hons) Paramedic Studies programme is compressed into three calendar years, which is made possible because the student paramedics are on work placement; hence there is not a three-month summer break or any breaks at Christmas and Easter, according to Macartan Hughes.

“The programme is taught principally through the NAS College in the early stages, within the NAS operational environment and remotely through UCC’s online Teaching and Learning platform. A total of 22 paramedics employed by NAS graduated from the BSc Paramedic Studies course and were awarded their degrees in October 2022,” notes Hughes.

An Advanced Paramedic programme is now being offered at MSc (Master of Science) level. UCC supports the NAS College in accrediting both the paramedic and NAS advanced paramedic programmes. In addition, UCC’s School of Medicine also delivers what Hughes describes as “core elements” of the paramedic programme, particularly during the second and third year of studies, while UCC also provides further specialist input into the advanced paramedic programme.



Ambulance personnel need to have resilience to bounce back, by being physically well and having robust mental health, according to Macartan Hughes, NAS Paramedicine Directorate.

**SPECIALIST PARAMEDICS**

Hughes explains that the wheels have also been put in motion on a critical care paramedic course. “The programme will be developed in line with standards laid out by the Pre-Hospital Emergency Care Council. At present those standards are in the early development stage so it’s hard to say when the programme will fully commence.”

Since the academic affiliation with UCC’s School of Medicine runs for a further five years, he maintains that both the NAS and UCC will be directly involved. “For example, a critical care paramedic programme will be based on a Level 9 award on the national framework of qualifications and will most likely be at MSc level,” he says.

Another collaboration – the CAWT (Co-operation and Working Together) funded cross-border pilot community paramedic programme – has been developed and delivered following collaboration between the NASC, the ambulance services in both Northern Ireland and Scotland, and Caledonian University in Glasgow.

This process commenced in 2015 with the first four successful community paramedics entering service with the NAS in 2018. “A further cohort completed a programme at MSc level, which was developed and delivered by NASC in affiliation with UCC in 2021,” Hughes explains. With 11 community paramedics currently in practice within the NAS, although the programme was paused in 2021, he hopes it will recommence “in the not-too-distant future”.

**SCENARIO-BASED TRAINING**

A combination of teaching and learning methodologies are utilised in any of the paramedic programmes. “A good deal of the scenario-based training includes an element of role playing while simulation-based training involves use of low to medium fidelity manikin simulation. Low fidelity manikins principally contain few if any electronic components and usually simulate anatomical structures.

“They are used to demonstrate anatomy and physiology as well as teaching the performance of certain skills such as correctly administering an injection. Medium fidelity manikins can range significantly in complexity and are usually designed

to facilitate the completion of complex multi-component tasks with the ability to offer visual feedback to the student, using an iPad or a similar device.

“They usually allow for the tutor to change parameters during use, to provide both feedback to the student, based on interventions completed and to change the level of complexity for the procedure or ranges of multiple procedures required of the student. “There is a simulation and scenario-based training on the advanced paramedic course. This involves a greater emphasis on decision making which requires participants to fully understand certain situations rather than just learning off a list of possible scenarios.”

**PEER SUPPORT NETWORK**

Hughes explains that the advanced paramedic programme requires a higher thought process level. He sees personal resilience as a key attribute to follow a career within the ambulance service, which he describes as “a wonderful job, a wonderful profession, but it has its moments”.

“Our staff are exposed to some unpleasant experiences during their working life, and they need to have resilience to bounce back. This is built on by being physically well and by having robust mental health. “Having the ability to switch off, have other interests and be a rounded individual is so important. This means that one can be empathetic, caring, compassionate and considerate toward patients without these unpleasant experiences eating them alive,” he says.

The NAS has an internal Peer Support Network available for staff who can also avail of the HSE Employee Assistance Programme as well as its Occupational Health Service. Additionally, the NAS CISM (Critical Incident Stress Management) system provides access to a clinical psychologist for general support and more urgent referrals.

**COMMUNITY FIRST RESPONDERS**

In early 2022, the HSE recruited COVID-19 first responders with EMT qualifications in the event of a significant rise in virus case numbers. Hughes explains the difference between CFR (Community



The recruitment of student paramedics and EMTs will be followed by the second phase to recruit emergency call-takers. For updates visit [www.nationalambulance.ie](http://www.nationalambulance.ie).

# Become a Community First Responder

A CFR is a person trained to a minimum level of basic life support in CPR and the use of an AED/defibrillator, who attends a potentially life threatening emergency such as a cardiac arrest, heart attack, stroke or choking. Contact [cfr@hse.ie](mailto:cfr@hse.ie) today.



*“Pre-COVID more than 230 CFR schemes were in operation before being stood down. However, over 150 are back in operation with processes ongoing to rejuvenate all schemes and to develop new CFR schemes” – Macartan Hughes, NAS College Head of Education.*

First Responder) schemes and the development of COVID-19 first responder teams, now referred to as Emerging Threat Teams (ETTs): “CFR schemes involve volunteers living in a community who respond to a predetermined selection of calls, mostly related to issues such as chest pain and cardiac arrest.

“Pre-COVID more than 230 CFR schemes were in operation before being stood down. However, over 150 are back in operation with processes ongoing to rejuvenate all schemes and to develop new CFR schemes.

“The Emerging Threat Teams (ETTs) are NAS staff who carry out a range of functions including the provision of personnel to man intermediate care vehicles when not deployed on COVID-related duties such as swabbing and test and trace,” he notes.

## PROFESSIONAL REGISTRATION

Primary legislation, which exists for many disciplines such as teaching, nursing and medicine, puts fitness to practice processes in place that protect the public, the profession and practitioners themselves.

The Pre-Hospital Emergency Care Council (PHECC) operates under SI (Statutory Instrument) 109 of 2000. In Ireland, SIs can take the form of ministerial orders, rules, byelaws, regulations and schemes. Without primary legislation any fitness-to-practice process has limited power. At the most severe end of inappropriate behaviour or practice a practitioner can be admonished but cannot be fully removed from the register, although PHECC can refuse to re-register the

individual when their registration expires.

Registration was first introduced in 2004, by SI. While the issue has been the subject of discussion, certainly since 2004, progress in terms of primary legislation has been slow, even with the acceptance that such primary legislation could take five years or more to draft and implement.

Currently Statutory Instruments only cover EMTs, paramedics and advanced paramedics. There is, therefore, no scope for specialist roles such as community or critical care paramedics, which Hughes believes restricts the development of the profession.

He refers to the fact that without primary legislation anyone may so choose to call themselves a paramedic as the title is not protected. “However, in the UK, anyone who is not registered by the Health and Care Professions Council (HCPC), and who calls themselves a ‘paramedic’ would be guilty of a criminal offence,” he says. In terms of the NAS, core training programmes are accredited by the Pre-Hospital Emergency Care Council.

## “DRAMATIC CHANGES” IN TRAINING

There have been what Hughes terms “dramatic changes” in training courses since he first started working in the ambulance service. In 1967 a five-week ambulance aid course was introduced, which included one week in a hospital-based and ambulance setting.

“For the NAS this was followed by the EMT course in mid-1996, which was classroom-based for nine weeks with 27 weeks of placements, two of which were in hospitals, with the



## FACTFILE – MACARTAN (MAC) HUGHES

Macartan (Mac) Hughes has served 43 years with the National Ambulance Service (NAS) and its precursor the Eastern Health Board (EHB) Ambulance Service. He has held roles such as an operational practitioner, a tutor and as Head of Education for the NAS. He was appointed as an Adjunct Clinical Professor in UCC’s School of Medicine in 2022.

Mac was involved in the introduction of EMT training in the 1990s, the introduction of paramedic and advanced paramedic training in the 2000s, plus the introduction of community paramedic training in the last five years.

He has been involved in the development of ambulance services in several developing countries, most recently in Pakistan. Mac continues to practice clinically as an off-duty AP responder for the NAS and as an active member of the Order of Malta Ambulance Corps.



*Ireland's first organised ambulance training course took place in 1967 at Ratra House in Dublin's Phoenix Park. It subsequently became the HQ of the Civil Defence. Today, it houses the administrative offices of Gaisce (the Irish President's Award for young people).*

remainder of the time working with the ambulance crews," he explains.

In 2004 PHECC introduced the paramedic programme to replace the existing EMT programme, and this consisted of one year's mixed classroom-based learning and placement experience followed by a year-long internship. That same year the NASC rolled out an advanced paramedic programme in partnership with University College Dublin, which was then at higher diploma level whereas the current programme is now at MSc level.

While there have been a range of major clinical changes due to improvements in education, one of the most significant changes has seen paramedics administering pain-relief medication in a pre-hospital care environment.

Indeed, paramedics can currently deliver up to 28 differing medications, including a range of analgesics while advanced paramedics may deliver an enhanced set of medications including powerful analgesics. Stories of patients in rural Ireland having to endure an agonising long journey to hospital without pain relief have now, thankfully in his opinion, been consigned to history.

### NATIONAL AMBULANCE SERVICE COLLEGE

The National Ambulance Service (NAS) College currently has three campuses, located in Tallaght in Dublin, Ballinasloe in Galway and Tullamore in Offaly where all EMTs, Paramedics and Advanced Paramedics receive training and ongoing revalidation. Further college locations are in the planning stage and will open within the next four years.

The college has the latest training aids and simulators at its disposal to ensure comprehensive training in a consistent manner for staff members. Training courses are wide-ranging and include patient care programmes, leadership courses, tutor development, major incident planning and preparation and driving.

The college also provides training to the other state agencies such as some fire services, Defence Forces, An Garda Síochána, as well as other healthcare professionals and members of a number of voluntary organisations. For more information visit [www.hse.ie/jobs](http://www.hse.ie/jobs) and search for 'ambulance'.



For further information visit [www.nationalambulance.ie/nascollege](http://www.nationalambulance.ie/nascollege)

