Pre-Hospital Emergency Care Council

# The introduction of Community Paramedicine into Ireland

## *Mission Statement*

*"The Pre-Hospital Emergency Care Council protects the public by independently specifying,reviewing, maintaining and monitoring standards of excellence for the safe provision of quality pre-hospital emergency care"*



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# Na soilse gorma sa phobal a mhúchadh

(Turning off the blue lights in the community)

## The introduction of Community Paramedicine into Ireland

August 2020

## Executive summary

Ireland is currently going through a health transition moving from hospital centric care to primary care. The Sláintecare Report [1] is the strategic framework which is guiding this transition. Community Paramedicine provides community-centred healthcare services that bridge primary care and emergency care [2] and undertake expanded roles such as health promotion and disease/injury prevention [3]. The genesis of Community Paramedicine lies with the provision of health care to under-served communities filling healthcare service gaps [4]. The intention of community paramedic in an Irish context is to work collaboratively with other partners in health to bring the right care to the right patient in a home setting. Other jurisdictions see Community Paramedics as a part of the solution to the ever-increasing demand on emergency health services [5-9]. This is not the intention of the PHECC, but it is to bring the right care to the right patient in the right place and at the right time. A patient cared for within the own community is a long-term strategy of the Government and the Department of Health [1]

Developments in pre-hospital care in Ireland had been ad-hoc up to the publication of the Ambulance Review [10] and the establishment of PHECC. However, to date pre-hospital emergency care provision has been built on existing care provision and using evidence- based medicine as the development process. An opportunity now exists to expand and develop the pre-hospital paramedicine role via development of Community Paramedics. There is only a recent history of Community Paramedicine practice in Ireland and now is anopportune time to develop an expanded model of care that serves the patient and the entire healthcare sector. To achieve this Sláintecare must be at the centre of the development with oversight from PHECC, the Irish College of General Practitioners and the Emergency Medicine Programme in conjunction with the National Ambulance Service clinical partnership.

As Community Paramedicine will bring benefits to the primary care, secondary care and pre-hospital emergency care sectors it is important that silo healthcare budgeting does not havea limiting effect on this important development. Direct Sláintecare funding will ensure that specific service/programme budgets are not impinged which would have a limiting effect on Community Paramedicine developments. Future considerations should be given to 'the money following the patient' principal.

The pilot Community Paramedicine programme, under the auspices of Co-Operation and Working Together (CAWT)[1], has received excellent reports from the participants, however gaps in the programme reflective of specifics of Irish healthcare delivery have been identified particularly in relation to clinical skills which must be incorporated into any future Irish programme.

In the absence of an agreed title to describe the person providing Community Paramedicine care the term 'Community Paramedicine practitioner' is used throughout this paper.

[1] CAWT is the cross-border health and social care partnership for the Health Service Executive in Irelandand the Southern and Western Health and Social Care Trusts, the Health and Social Care Board and the Public Health Agency in Northern Ireland. The CAWT partnership has been in existence since 1992.

As consolidation of this role throughout Irish healthcare agreement on the title for this practitioner is required.

Community Paramedicine models have demonstrated promising results from the experiences of patients and their careers. The goal for PHECC is to support the establishment of Community Paramedicine practice by maintaining care in the community and giving the patient an alternative level of care to the traditional emergency department visit. The evidence is that care provided by Community Paramedicine practitioners have thecapacity to help reduce emergency department visits, hospital admissions/ re-admissions and that these programmes have been well received by community residents [11].

No significant safety issues were identified from the only randomised controlled trial on Community Paramedicine and the economic studies indicated that the implementation of Community Paramedicine programmes would be supported [11].

Research, a statutory function of PHECC, is timely for Community Paramedicine developments. This should be targeted to define and delineate policies, procedures, and protocols of Community Paramedicine programmes. Follow up research is also required to evaluate the impacts on patients, communities, and healthcare systems at all stages of programme implementation. The evaluation of the impact of such programmes is, however, methodologically challenging [11].

Legislation change will be required to develop Community Paramedicine to its full extent in Ireland. This will involve registration, qualification awarding and medication legislation change.

PHECC is in an ideal position to take a leadership role in this new healthcare development within Ireland which began with the CAWT pilot programme in 2017. The development ofthis practitioner grade is of significant importance particularly when it will enhance the delivery of Sláintecare (2017) and its strategic goals.

Hillery Collins
Chair, Community Paramedic sub-group

Brian Power
Programme Development Officer

## Recommendations

**Recommendation 1:** PHECC to engage with the Sláintecare office to ensure an integration of the Community Paramedicine programme with other Sláintecare projects.

- The role of Community Paramedic should have a focus on shifting care from acute hospital to community care.

**Recommendation 2:** It will be essential that the Community Paramedicine practitioner would have the word 'paramedic' in the title.

- Consider utilising the title of 'Community Paramedic Specialist' or 'Primary Care Paramedic' to describe the Community Paramedicine practitioner.

**Recommendation 3:** PHECC to facilitate the mainstreaming of Community Paramedicine into Ireland and engage with the wider stakeholders to achieve this aim.

**Recommendation 4:** PHECC to set standards and educational outcomes for the Community Paramedicine Practitioners going forward.

- International models and the NAS experience could help with the setting of these standards and educational outcomes

**Recommendation 5:** PHECC to explore the integration of Community Paramedicine with Primary and Acute Care.

**Recommendation 6:** As there is limited experience of Community Paramedicine in Ireland the experience of the role resides with those stakeholders involved in the CAWT funded pilot project and other existing community-based pilot project participants. PHECC to engage with them when deliberating on Community Paramedicine, taking cognisance of the evaluation of the CAWT Project which will be completed in Q4, 2020 following cessation ofthe CAWT Project on 31st August 2020.

**Recommendation 7:** PHECC to establish a sub-group under MAC to set clinical standards for the Community Paramedicine programme.

- The sub-group may include representative(s) from ICGP, the Community Paramedics qualified in Glasgow Caledonian University (GCU) as part of the CAWT Project, paramedics who have completed the Irish Community Paramedicine programme, a primary care/ general practitioner academic, a representative from the NAS Medical Directorate, a patient representative, other existing community-based pilot project participants and other persons determined by MAC.

**Recommendation 8:** Robust clinical governance structures, on the part of Licensed CPG Providers, including supervision, mentoring and clinical audit are required.

**Recommendation 9:** Urgent legislation change is required to accommodate Community Paramedicine training, qualification awards and registration.

- Change is also required to facilitate prescription only medication administration by Community Paramedic practitioners.

**Recommendation 10:** Legislation change is required to enable Community Paramedicine Practitioners prescribe medications as autonomous practitioners.

**Recommendation 11:** An appointment of clinical facilitator(s) with appropriate education skills and Community Paramedicine practice experience is required to support the programme.

**Recommendation 12:** That the PHECC Education and Standards committee develop the educational requirements to support the roll out of Community Paramedic Practitioners.

**Recommendation 13:** Core competencies required of a Community Paramedicine practitioner include: autonomy in clinical practice, decision making, expert practice, professional and clinical leadership, research, teamwork, communication skills, population health & health promotion.

- To accomplish these the education to be set at level 9 on the National Qualifications Framework.

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## Abbreviations

| | |
|---|---|
| AP | Advanced Paramedic (IRL) |
| CORU | Health and Social Care Professionals Council |
| CP | Community Paramedic |
| CAWT | Community and Working Together |
| CRM | Crew Resource Management |
| DFB | Dublin Fire Brigade |
| EMS | Emergency Medical Services |
| ECP | Emergency Care Practitioner (UK) |
| EAS | Emergency Aero-medical Service |
| GP | General Practitioner |
| HSE | Health Service executive (IRL) |
| HCPC | Health & Care Profession Council (UK) |
| HEM | Helicopter Emergency-medical ServiceIRL Ireland |
| ICGP | Irish College of General Practitioners (IRL) |
| IRCP | International Roundtable on Community Paramedicine |
| MAC | Medical Advisory Committee (PHECC) |
| NAS | National Ambulance Service (HSE) |
| NMBI | Nursing & Midwifery Board (IRL) |
| PHECC | Pre-Hospital Emergency Care Council |
| UK | United Kingdom |

# 1 Introduction

## 1.1 Background and context

Paramedicine is described as 'about caring for people and supporting their immediate health needs' [12].

Community paramedicine is a relatively new and evolving healthcare model. It involves pre-hospital emergency care practitioners operating in expanded roles supporting public health, primary healthcare and preventive services in the community. The goal is to improve access to care and complement existing services.

The International Roundtable on Community Paramedicine[2] provides the following definition:

> *"a model of care whereby paramedics apply their training and skills in non-traditional community-based environments outside of the usual emergency response/transport model. The community paramedic practices in an expanded role; working in non-traditional roles using existing skills."*[http://ircp.info/About-Us](http://ircp.info/About-Us) *Accessed May 2020*

There is a growing evidence base supporting the notion that Community Paramedicine could form a new model of care that addresses some of the reformneeds in the health sector [13].

Some jurisdictions refer to Community Paramedicine as Mobile Integrated healthcare. Mobile Integrated Healthcare is described as the provision of healthcare using patient centred, mobile resources (ambulance practitioners) in the pre-hospitalenvironment.

Community Paramedicine may include but is not limited to services such as chronic disease management, preventive care or post-discharge follow-up visits, patient and family education, transport or referral to a broad spectrum of appropriate clinical care pathways, not limited to hospital emergency departments (EDs). When a patient is discharged from an acute hospital or an ED, the continuity of care is paramount to avoid early re-admission. Follow-up appointments are scheduled, referrals to specialists, and medications are often prescribed as an element in the continuity of care. There is uncertainty, however, whether patients will actually follow up with these appointments and/or fill their prescriptions.

Are there socioeconomic factors that mitigate against travelling to the outpatient appointment, and if no, will they even remember the appointment? Will a clinical concern or exacerbation cause a return visit to the ED? Are they taking the medication as prescribed? These issues often create a healthcare gap for patients, which may lead to a decrease in care efficacy and an avoidable re-admission tohospital.

[2] The International Roundtable on Community Paramedicine is an organisation of delegates from various countries and regions dedicated to exploring the promotion and better delivery of health carethrough the utilisation of traditional and non-traditional models of care.

The Community Paramedicine practitioner model involves pre-hospital emergencycare practitioners providing a new resource to bridge this healthcare gap. Community paramedicine is still in its infancy worldwide and as a result manyhealthcare practitioners and/or policy makers are unaware of the benefits of community paramedicine [14].

Community Paramedicine practitioners are initially trained within the standard paramedic education model. They then complete a further program of education to qualify as a Community Paramedicine practitioner.

The community paramedicine programmes focus primarily on patient homecare visits where the intent is to assess the patient and establish an appropriate care planfor that patient. The initial contact, however, may be through the 112 system as the patient and/or family member may perceive that they are experiencing an emergency.

A Canadian study findings indicate that successful Community Paramedicine programmes are integrated with local health systems, have viable treatment andreferral options for sub-acute and chronic patients, are built on broad paramediceducation and have inclusive governance systems [4].

The Department of Health (2016) describes Integrated Care as preventative, enabling, anticipatory, planned, well-coordinated and evaluated. The DoH also specifies the aim of integrated care as to improve outcomes and experiences for the greatest number of patients by putting patient outcomes at the centre of activity.

It looks at processes and outcomes of care rather than at structural and organisation issues. Within the integrated models of care delivery health care professionals work in partnership across disciplinary boundaries to produce new and more effective models of care [15]. Integrated Care fits neatly into a holistic healthcare structure which a Community Paramedicine practitioner is clearly a bridge between primary care and acute hospital care.

In summary, Community Paramedicine may support more efficient use of healthcare resources by increasing collaboration between different healthcare professionals and facilitating patient access to appropriate home and community services.

## 1.2 Purpose of the working group

To develop a position paper examining the potential scope and role of a Community Paramedicine practitioner in Ireland including indicative scope of practice, educational requirements, and international comparators.

### 1.2.1 Paramedic (IRL)

The PHECC Education Standards describe Paramedics as skilled emergency medical care practitioners who are trained to maintain a high standard of professional competence. The role of a Paramedic includes assessing of the needs of a patient, making informed clinical decisions, planning, and delivering appropriate interventions whilst monitoring a patient's condition. A Paramedic focuses on the delivery of immediate, often live-saving patient care in diverse setting primarily outside of the traditional hospital environment. There is a need to examine the role and responsibilities of the Paramedic in the context of Community Paramedicine as only Advanced Paramedics have had an opportunity to apply for the Community Paramedic pilot programme. NAS has recently interviewed paramedics for future courses.

### 1.2.2 Advanced Paramedic (IRL)

An Advanced Paramedic is described by PHECC as a highly skilled and experienced emergency care practitioners who is trained to and maintains a high standard of professional competence. An AP acts as the clinical lead at incidents and is an expert practitioner in the field of pre-hospital emergency care. The role of the AP includes not only managing patients in the complex and unpredictable pre-hospital environment but also will include the treatment and referral of patients who access the health service through the 999/112 system who do not require immediate hospital assessment. The latter is suggestive of Community Paramedicine practice.

### 1.2.3 Primary care setting

Patient care is diverse and patient care in diverse settings primarily outside of the traditional hospital environment is ever evolving and needs to be cognisant of government policies. Government has recognised that there is a need to evolve care practice in the Sláintecare report [1] which clearly outlines the critical service delivery challenges currently within the Irish healthcare system. Community Paramedicine development is complementary to the roll out of Sláintecare. The Irish College of General Practitioners (ICGP) describe the role of GPs which includes 'care provision is done either directly or through the services of others according to the health needs and resources available within the community they serve, assisting patients where necessary in accessing these services. The integration of Community Paramedicine with GP practice complements this ICGP description.

## 1.3 Community Paramedicine

When the public ring 112 trained call-takers, using specifically designed software (AMPDS), triage the incident into one of six acuity levels [16].

- **Echo** = cardiac/respiratory arrest,
- **Delta** = Life-threatening other than cardiac/respiratory arrest,
- **Charlie** = Serious not life-threatening – immediate,
- **Bravo** = Serious not life-threatening – urgent,
- **Alpha** = Non-serious or not life-threatening,
- **Omega** = Minor illness or injury.

An ambulance is then dispatched to the incident dependent on the order of priority and availability of resources. A Canadian study identified that AMPDS has a sensitivity of 68% and a specificity of 66% in identifying the actual acuity of a patient when compared to an out of hospital acuity score (Canadian Triage and Acuity Scale) [17].

Call takers must strictly adhere to the software script therefore they cannot deviate to complete a more focused history particularly for low acuity patients. Research on low acuity triaged patients identify that up to 25% of these patients were subsequently admitted to hospital thus questioning the safety of this system [18]. Utilising Community Paramedicine practitioners with a delayed response would give a safety net for these low acuity patients.

Individuals who are frequent callers to the 112 system utilise significant ambulance service and emergency department (ED) resources. A Community Paramedicine practitioner visit to their home will direct them to primary care and/or social servicesthus

minimising unnecessary calls.

Ireland currently has an average of 11% re-admission rate within 30 days following discharge from an acute hospital. The utilisation of Community Paramedicine practitioners within other jurisdictions has had an impact on reducing re-admission rates through proactive visits within a few days of discharge. Such visits may encompass both a clinical role and also an educational role related to on-going care and empowerment of patients to better manage their chronic illness(s).

Community Paramedicine practitioners can function outside traditional emergency response and transport roles, and instead assist in maintaining individuals' health while in their homes by providing convenient, unscheduled careaccess.

> *A significant paradigm shift in the care of non-urgent, low-acuity patients has been gathering momentum over the last two decades. Paramedic services across North America, and United Kingdom, and Australasia have progressively embraced new paradigms of care in the out-of-hospital setting to provide alternate pathways for low-acuity patients other than the emergency department [19]*

The Community Paramedicine practitioner completes a detailed assessment of the patient and may consult directly with the patient's General Practitioner (GP) to determine required diagnostic and/or treatment plans. Treatment plans may also beavailable on site or through prior GP discussion, outlining treatment and medications. Follow-up care and monitoring can be arranged with the most appropriate healthcare service. This may include a Community Paramedicine practitioner follow up visit, homecare or arranging for the patient to be seen at theirspecialist out-patient clinic.

Uptake on vaccinations, particularly flu vaccination, is less than desired in Ireland. Community Paramedicine practitioners are utilised in other countries to provide vaccinations, particularly in rural areas.

### 1.4 Vision for the future

The focus on healthcare is moving from vertical integration of care (linking primary, secondary and tertiary care) to placing more emphasis on horizontal integration [1]. This involves moving away from a model where the GP acts as the sole gatekeeper toone where interprofessional multidisciplinary teams act as facilitators to specialist services and enable integration between the care sectors (social and health) [14].

Many countries are focusing on integration between pre-hospital emergency care, acute care, primary care and community care. This approach is delivering improved patient outcomes and care closer to home for patients. It is also encouraging bettercoordination of patient care pathways and improving dialogue between sectors andkey stakeholders (healthcare practitioners, healthcare agencies and government policy makers).

Paramedics are increasingly accepted as healthcare practitioners who can make significant contributions toward improving the health and well-being of populations beyond traditional emergency response and transportation roles [20].

A Canadian study identified four factors associated with the successful implementation and future sustainability of Community Paramedicine programmes [4]. These factors address the issue of whether Community Paramedicine models of care can be sustainable, given political will and adequate funding. The enabling factors are:

- Integration with health, aged care and social services
- Governance and leadership
- Higher education
- Treatment and transport options

One of the central motivations for establishing Community Paramedicine programs is to help keep patients in their community and avoid unnecessary emergency department attendances or unnecessary hospital admissions [21]. For this vision to be enacted, pathways need to be established that are wider than the emergency medicine approach, with the social and cultural needs of isolated or disadvantaged patients addressed.

The Making Every Contact Count (MECC) Framework - The Making Every Contact Count Framework is a National Framework for health behaviour change in the health service, which sets out how interventions to support lifestyle behaviour change need to be integrated into our health service. The adoption of this approach by clinicians, frontline staff and leadership teams will result in the people who access the health service on a daily basis being supported in their efforts to make lifestyle behaviour changes in order to reduce their risk of developing chronic disease. https://www.hse.ie/eng/about/who/healthwellbeing/making-every-contact-count/

Adopting the MECC framework will assist with integrating the Community Paramedicine programme into the wider healthcare community supporting primary care and acute care initiatives.

### 1.5 The Irish context

Currently, in Ireland the public dial 112/999 and request Emergency Medical Services (EMS) assistance when, in their opinion, an emergency medical event has occurred. Furthermore, there is a public expectation of an ambulance response every time an individual dials 112 [22]. The traditional role of paramedics is to transport patients to an emergency department regardless of the severity of injury or illness [23-25].

Evidence suggests that there is divergence between the perceptions of patients' and emergency healthcare staff of what constitutes an emergency and the subsequent appropriateness of calling for an ambulance [26-32]. Socioeconomic factors are also reasons cited for calling an ambulance through the 112 system, [33,34,24].

HSE 2019 KPI title & Number CPA53 – report 11.3%, year to date, of emergency re-admissions for acute medical conditions to the same hospital within 30 days of discharge [35]. This represents ~ 70,000 re-admissions annually. The reasons for hospital readmissions vary. Some patients have ongoing conditions or diseases that require multiple treatments and hospital visits to slow the rate of growth. Others can be readmitted due to the level of care either during their stay or post-discharge, preventing patients from successful transfer from hospital to home. Three out of four patients in an acute hospital in Ireland are admitted with an exacerbation of a combination of chronic

illness [36]. Many Community Paramedicine programmes target recently discharged patients assisting the transition from acute care to independent living in the community. Even a small indent in the re-admission rate would have a significant benefit to both patients and health economics.

In Ireland there are currently 5,250 Omega category incidents and 36,500 Alpha category incidents per annum responded to by NAS. Community Paramedicine practitioners, as part of the pilot project, are dispatched to such incidents in their area of operation. Community Paramedicine practitioner interventions in these areas have provided appropriate care in the community and negated the need for some patients to be transported to an emergency department. The roll out of Community Paramedicine in Ireland could have a significant impact on the patient experience and reduce the necessity of attendances to the ED. A four-hour response, to such incidents, is typical in countries that have established Community Paramedicine practitioners over the last number of years. Dispatching a Community Paramedicine practitioner to low acuity calls/incidents will provide an additional alternate pathway for emergency services to manage such patients.

1.6 Irish resources

An Irish study (Little & Barton, 1998) identified that 20% of patients attended ED inappropriately [29]. A later UK study (Patten et al, 2013) identified that 32% were found to be attending ED via ambulance inappropriately and of these, 80% could havebeen managed in primary care [37]. Approximately 300,000 ambulance responses occur annually in Ireland. This is an ever-increasing figure putting strain on existing resources. Community paramedicine and other initiatives, such as treat and referral, have resulted in up to 35% of ambulance transport reduction in other jurisdictions.

Community Paramedicine practitioners have resulted in considerable reduction of ED transports in other jurisdictions. As Community Paramedicine practitioners are rolledout in Ireland their deployment should be considered as a referral option [38].

There appears to be an increasing difficulty recruiting general practitioners for rural practices in Ireland. This deficit is resulting in large geographic tracts without appropriate primary care for the population living there. A solution in other jurisdictionshas been to deploy Community Paramedicine practitioners to support GPs. A USA qualitative study identified a similar opinion "*Doctors don't do home visits anymore. Hardly ever! That's why people call 911 all the time" [4].*

Community care is organised under nine Community Health Organisations (CHOs) which link the work of primary care, social care, health and wellbeing and mental health at a local level. The Lightfoot report (2015) identified an opportunity for the National Ambulance service (NAS) who could play a crucial role as a key provider and supporter of care in the community setting [39].

Sláintecare is the strategic plan for the provision of healthcare in Ireland over the next ten to twenty years. The plan includes an expansion of universal primary care with a budget of €265.6 million targeted for this area over first five years of the plan [1]. As Community Paramedicine is complementary to the objectives of Sláintecare it is timely

that Community Paramedicine is being considered by PHECC.

**Recommendation 1:** PHECC to engage with the Sláintecare office to ensure an integration of the Community Paramedicine programme with other Sláintecare projects.

- The role of Community Paramedic should have a focus on shifting care from acute hospital to community care.

## 1.7 Terminology

While there appears to be a universal agreement on the definition of Community Paramedicine, see 1.1 above, however, there is no consensus on the term to describethe healthcare practitioner that provides Community Paramedicine.

Several terms have been identified in the literature, see table 1.

Table 1 Terms describing a Community Paramedicine practitioner internationally

| **Term** | **Country** |
|---|---|
| Advanced Care Paramedic | USA |
| Advanced Practice Paramedic | Canada |
| Certified Community Paramedic | USA |
| Community Health Paramedic | Canada, USA |
| Community Paramedic | USA, Canada, Norther Ireland, Ireland, Australia |
| East Coast Paramedic | Tasmania |
| Emergency Care Practitioner | UK |
| Extended Care Paramedic | New Zealand, Australia |
| Isolated Practice Area Paramedic | Australia |
| Paramedic Community Support Coordinator | Australia |
| Paramedic with community paramedic endorsement | USA |
| Primary Care Paramedic | USA |
| Primary Care Technician | USA |
| Rural Hospital Support Paramedic | Australia |
| Specialist Paramedic | Scotland |

The Department of Health has assured PHECC that they are progressing with legislation to protect the titles of 'emergency medical technician' and 'paramedic'. It would therefore be essential that the Community Paramedicine practitioner would have 'paramedic' in the title.

Feedback from one of the Irish practitioners providing community paramedicine is that patients sometimes equate 'community paramedic' with 'community first responders' particularly as they arrive without an ambulance.
'Advanced' has been linked to advanced life support and is synonymous with the current advanced paramedic.
'Technician' is linked with EMT which is the lowest level of PHECC practitioner and may not project an image of an autonomous practitioner.
'Isolated' or 'Rural' suggests that this practitioner would not be deployed in an urban area.
'Extended Care' does not suggest any particular scope of practice.
'Primary Care' would project the type of practice that is envisaged.
'Specialist' is used by both medical and nursing colleagues to project expertise in a particular area.

**Recommendation 2:** It will be essential that the Community Paramedicine practitioner would have the word 'paramedic' in the title.

- Consider utilising the title of 'Community Paramedic Specialist' or 'Primary Care Paramedic' to describe the Community Paramedicine practitioner.

## 2 Drivers for change

### 2.1 Government policy

A number of aspects of Government and HSE Policy could be supported by a Community Paramedicine practitioner grade including: The Primary Care Strategy and Sláintecare. Community Paramedicine is complementary to the aims and objectives of both Sláintecare and the Primary Care Strategy. The Primary Care Strategy has led the developments in primary care in Ireland and the Sláintecare report was built on this strategy. The introduction of Community Paramedicine into Ireland will assist the implementation of and ongoing success of Sláintecare.

### 2.2 The Primary Care Strategy

From the perspectives of patients and healthcare practitioners there are good reasons to avoid ED attendance when possible [40]. These include patient satisfaction, health outcomes and economic value. The Primary Care Strategy [41] is to enable primary care to develop the capacity to meet challenges such as Ireland's ageing population, ensuring earlier hospital discharge, care in appropriate settings as well as the opportunities afforded through modern information and communicationstechnology.

### 2.3 Sláintecare Strategy

The themes of care in the community and inappropriate care in acute hospitals is reinforced throughout the Sláintecare report [1] which places the emphasis on delivery of healthcare in the community, rather than in hospital settings. The focus ison providing care to patients as close to home as possible by the most appropriate clinician.

In section 3.6 of the Sláintecare Report, page 79, Addressing Critical Service Delivery Challenges, states:

> *"The second critical change is that care should be delivered at the lowest levelof complexity as is safe, efficient and good for the patients. This requires us tomove down the care pyramid. For example, currently a significant amount of care is provided in acute settings, although it would be better provided in the primary and social care setting.*
>
> *Similarly, even within the acute hospital system some aspects of care could be provided more effectively and efficiently in lower-level hospitals leaving more complex cases for specialist hospitals. Integrated care may also mean, for example, locating specialist nurses in the community to work with GPs tomanage chronic diseases.*
>
> *There are also significant possibilities for extending the roles of paramedics, public health nurses, health care assistants, community based clinical leads and allied health professionals to provide services in the community. This will require the building up of staff capacity and facilities outside of hospitals or inlower-level hospitals."* [1]

Sláintecare and Community Paramedicine practice are therefore synonymous.

2.4 HSE Clinical programmes

> *'The National Clinical Programmes have provided a foundation of valuable learning of the need to maintain and enhance clinical leadership and developclinical pathways that are truly patient-centred. The National Clinical Programmes with a number of supporting initiatives are tasked with improving specific areas within the health service. This is achieved by designing and specifying standardised models of care, guidelines, pathways and associated strategies for the delivery of clinical care.'* (www.hse.ie )

Community Paramedicine targets patients with chronic illnesses with an aim to identify exacerbations in the early phase thus impeding progression to an acute phase.

The following clinical programmes may benefit from Community Paramedicine involvement in the care continuum:

- Asthma
- Chronic Obstructive Pulmonary Disease
- Diabetes
- Emergency medicine
- Epilepsy
- Heart Failure
- Mental Health
- Older Persons
- Palliative care
- Stroke

## 2.5 Pre-Hospital Emergency Care Council

The Pre-Hospital Emergency Care Council (PHECC) is the statutory body with responsibility for the regulation of pre-hospital emergency care in Ireland. Its statutory functions include, setting standards of operation, education and trainingfor pre-hospital emergency care in Ireland. PHECC also has a statutory function to develop clinical practice guidelines and to maintain a statutory register of pre- hospital emergency care practitioners.

Currently there are three divisions on the PHECC register: EMT, paramedic and advanced paramedic. These divisions are specified in legislation (SI 575 of 2004) and are linked to the Seventh Schedule (SI 510 of 2005) in relation to the legal administration of prescription only medications (POMs) by these practitioners.

To enable a Community Paramedicine practitioner to be registered as a distinctive clinical level there is a requirement to create a new division on the PHECC register which will require new legislation.
A 'Specialist Paramedic' division will facilitate other specialist paramedics such as Critical Care Paramedic to also be registered with PHECC and will future proof it forfurther clinical developments.
This new registration division will enable a smooth transfer from any of the other three divisions of the PHECC register following completion of the required educational programme. This will reduce the complication whereby there would bea paramedic level Community Paramedicine practitioner versus an advanced paramedic level Community Paramedicine practitioner, even though they have the same scope of practice. It will also enable an extra part to be added to the Seventh Schedule to ensure legal administration of POMs by Community Paramedicine practitioners and other specialist paramedics.

The legal implications for the introduction of Community Paramedicine are exploredin more detail in section 5.2 below.

## 2.6 Evidence Base

As early as 1997 the American College of Emergency Physicians (ACEP) acknowledges that as systems for patient care evolve, an expanded scope of practice for EMS personnel should be considered [42]. They conclude that in many circumstances these expanded programs are being developed in response to community needs.
Nineteen years later the ACEP reinforce their support for these expanded roles,stating that 'the evidence must be clear and compelling that significant patient benefit will result from any such expansion of roles for EMS providers' [43].

Community Paramedicine programmes, for targeted populations such as the elderly and frail, in Europe, North America and Australia have resulted in up to 50% decreases in patients being transported to emergency departments [13].

A 2016 study of community paramedic programmes in the USA identified that successful programmes are 'integrated with local health systems, have viable treatment and referral options for sub-acute and chronic patients, are built on broad paramedic education and have inclusive governance systems' [4].

Community paramedicine programmes have demonstrated improved care for people living in the community and reduced the unnecessary use of ambulance andacute

hospital services [44]. Patients with chronic conditions benefit from improved access to health care resources and services in a familiar setting through the establishment of trusting relationships with community paramedic services [45].

Some patients with complex medical/ psychosocial issues contact EMS for assistance multiple times within short timeframes, referred to as frequent users/ flyers. However, there is no clear definition in the literature of a frequent user of EMS [46]. A recent study in Singapore, using a criterion of ≥ 4 calls to EMS per annum, identified 2.3% (n=243) of patients transported met these criteria [47]. An Ontario community paramedicine programme targeted frequent users and resulted in a reduction of emergency ambulance responses by 24%, emergency department transports by 20% and admissions to hospital following ED transports by 55% among this cohort [48]. Similarly, a Texas (USA) study also identified benefits for frequent users of emergency services from the introduction of Community Paramedicine programmes [49]. The findings were that ambulance transports decreased by a mean of 5.3 times ($p < 0.001$), ED attendance by a mean of 9.7 times ($p < 0.001$) and admissions by a mean of 3.1 times ($p = 0.003$). They conclude that improvements may result from psychosocial bonding with patients who received care at home, health coaching and immediate healthcare access.

Patient assessment is a fundamental feature of community paramedicine, but the absence of a recognised standard for assessment practices contributes to uncertainty about what drives care planning and treatment decisions [50].

A recent systematic review identified that the greatest benefits of community paramedicine are found in two areas. First, reducing acute care utilisation (i.e. ED transport and/or hospital admissions) especially post-discharge. Secondly, and arguably the greatest value is through primary prevention (i.e. smoking cessation, blood pressure management, blood sugar control), however, it concluded that thereis limited robust evidence to support the community paramedicine model [51].

Rasku et al. (2019), following a scoping review, identified four core components of Community Paramedicine (i) Community engagement, (ii) Multi-agency collaboration, (iii) Patient-centred prevention and (iv) Outcomes of programme; cost-effectiveness and patients' experiences [52].

Based on interviews with paramedics, volunteer ambulance officers, and other health professionals from four rural regions of Southeast Australia with existing innovative models of rural paramedic practice, O'Meara et al. (2012) found that, in small rural communities, paramedics are increasingly becoming first-line primary healthcare providers and developing additional professional responsibilities throughout the cycle of care [53].

The California Post-Discharge – Short-term Follow-Up projects have improved patient safety by performing home visits within a few days of a patient's hospital discharge to ensure that patients understand their discharge instructions, are taking medications as prescribed, have sufficient refills to manage their conditions, have scheduled follow-up visits with their physicians and are adhering to any dietary restrictions pertinent to management of their condition [54]. They further report significant financial savings to the overall healthcare budgets within the area of the pilot.

A recent study of two North American Community Paramedicine programmes concluded that that scepticism, criticism and misunderstanding caused anxiety for participants transitioning into community paramedic roles, highlighting that improved education and communication from paramedic service management withinternal staff and allied health partners might improve this transitional process [55].

The international evidence is clear that Community Paramedicine helps improves community health and patients experiences of the health system [56].

**Recommendation 3:** PHECC to facilitate the mainstreaming of Community Paramedicine into Ireland and engage with the wider stakeholders to achieve this aim.

# 3 International experience/ models of Community Paramedicine

The first international meeting for Community Paramedicine was held in Halifax, Nova Scotia in 2005. Delegates from Australia, Canada, Scotland and USA attendedwith a view to discuss isolated elderly populations and overwhelmed rural healthcare services.

The findings from a systematic review of Community Paramedicine programmes are that programmes in the United Kingdom, Australia, and Canada are perceivedto be promising, and one RCT shows that paramedics can safely practice with an expandedscope and improve system performance and patient outcomes [57].

Details on the international perspective of Community Paramedicine was obtained mainly from a report by the Institute of Health Economics, Canada [11].

## 3.1 United Kingdom

In the United Kingdom the Health and Care Professions Council (HCPC) regulates the paramedicine profession and has developed standards to regulate and approve education programs. The HCPC, however, has not developed comparable standards and regulations for community paramedicine. The HCPC describe that their registrants work in a range of different settings, which include direct practice, management, education, research and roles in industry. They outline that the use of terminology can be an emotive issue. It must be pointed out that HCPC in the UK is equivalent to the Health and Social Care Professionals Council (CORU) in Ireland who regulate all non-doctor and non-nurse/midwife practitioners with the exception of PHECC practitioners.

'Taking Healthcare to the Patient 2' [58], a report commissioned by the Associationof Ambulance Chief Executives (UK), is clear that not all patients who ring 999 needED care. The report, nevertheless, concedes that many such patients do need assessment and treatment prior to being offered alternative care pathways.

Specialist paramedic training has been developed in the UK to manage increasing demand from a broad range of 999 callers with non-life-threatening conditions where community and/or social care rather than the Emergency Department care may be more appropriate [59]. Among the various community paramedicine models in the United Kingdom, the Emergency Care Practitioner (ECP) program is the most impactful, implemented widely in the United Kingdom since 2003. ECPs come from nursing and paramedical backgrounds; the role of ECPs is occupying the space between the physician, the nurse, and the paramedics, and most ECPs in the United Kingdom are recruited from paramedics. The

aim of this non-traditional, community-based program is to provide assessment and treatment of patients with minor illness/injury within the community, without necessarily transporting the patient to the hospital. With additional training in assessment, examination skills, and management of long-term conditions, ECPs are capable of undertaking many activities traditionally carried out by physicians, including an initial assessment of patient status and deciding whether to deliver simple treatments or initiate referral to an appropriate clinical team, see table 2.

ECPs are primarily employed by United Kingdom Ambulance Services trusts, and work in a variety of urban and rural settings including general practitioner surgeries,minor injuries units, and emergency departments. Clinical support and supervision areprovided from Ambulance Services or host providers.

Specialist Paramedics in Scotland are experienced autonomous allied health professionals who have undertaken further study and skill acquisition to enable them to be able to deliver a more enhanced level of assessment and indeed care to patients in the community and access many more referral pathways. Specialist Paramedics – Urgent & Emergency Care are allied health professionals who are patient-focused and are responsible and capable of delivering safe and appropriatetreatment to patients with urgent, emergency, and unscheduled healthcare requirements. Their focus includes the care of acutely ill patients at initial presentation, and those who present with an acute exacerbation of a chronic illness or disease, all of which can potentially be managed in the primary care setting, and potentially fifty per-cent (50%) could be managed at the point of contact. Specialist Paramedics – Critical Care are experienced autonomous allied health professionals who have undergone further training enabling them to provide a wider range of care and treatment at the scene for critically ill and injuredpatients. The College of Paramedics emphasises the aspiration of future Specialist Paramedics obtaining the relevant skills and competencies through programmes of education at PGCert/ PGDiplevel, or SQCF level 11 in Scotland [60].

*Table 2 Scope of practice of ECPs in the United Kingdom*

| **Presenting complaint** | |
|---|---|
| Falls | Minor burns |
| Lacerations | Foreign body in ear, nose, or throat |
| Epistaxis | |
| **Practical skills** | |
| Local anaesthetic techniques | Principles of dressings and splintage |
| Wound care and suturing techniques | |
| **Special skills** | |
| Joint examination | |
| Examination of neurological, cardiovascular, and respiratory systems | |
| Examination of ear, nose, and throat | |
| Carrying out/interpreting diagnostic tests | |
| Protocol-led dispensing of simple analgesia, antibiotics, and tetanus toxoid | |
| Prescribing a wider range of medications | |
| Assessment of mobility and social needs, including routine assessments for patients with chronic conditions | |
| Directly admitting patients to specialist units | |
| **Additional options for referral and requesting investigations** | |
| Requests for radiography | |
| Referral processes for emergency department, general practitioner, district nurse, and community social services | |

## 3.2 Canada

The Toronto EMS Community Paramedicine program was developed in 1999 in Toronto, Ontario. It is a non-emergency, community-based service with a focus on health promotion, system navigation, and injury prevention in the urban area. The mission of this program is to help patients in the community solve some of their medical and care problems before they become real emergencies. Services offered by this program include heat surveillance, window and balcony safety, vaccinations (influenza, hepatitis A, meningitis C, and streptococcal pneumonia), infection prevention and control, and Community Referrals by EMS.

In Hamilton, Ontario the effectiveness of a 'Community Health Assessment Program' in reducing blood pressure, diabetes risk and EMS calls for older patients in subsidised housing was investigated [3]. The programme resulted in ambulance calls decreasing by 25% during the study period. Other findings were that participant's blood pressure reduced and there was a tendency towards lowered diabetes risk.

A nurse practitioner-paramedic-physician model has been developed and implemented in the islands of Long and Brier, two isolated islands approximately a 45-minute drive away from the small town of Digby, Nova Scotia, with access restricted to passenger car ferries. With approximately 1,240 residents and 50% of them over 65 years old with increased healthcare requirements, it was challenging for rural communities to provide accessible health care to residents on the islands. In the first phase of the nurse practitioner-paramedic-physician model, 24 hours a day/ 7 days a week emergency paramedic coverage on the islands was established. Community Paramedicine practitioners started services such as administering flu shots, holding clinics, checking blood pressures, and answering phone calls from residents for non-emergency services, such as checking for diabetes.

A report on Community Paramedicine [2] state that Ontario will be better served by community paramedicine programs, where paramedics visit vulnerable patients in their homes while providing a range of services, such as taking medication, managing chronic diseases or referring them to local health or community services.

Alberta has an EMS Palliative and End-of-Life Care "Assess, Treat and Refer" program through which patients can access urgent, acute palliative care services in their homes or in the community. This service is available to any palliative patient in Alberta experiencing a medical emergency (for example, shortage of breath, nausea, delirium, orincreasing pain), and can be activated by any registered healthcare professional or triggered by a routine 911-call. The program is staffed by Alberta Health Services (AHS) EMS paramedics, who can deliver palliation and rehydration therapy, and can administer medications (analgesics). These EMS paramedics work with the patient's attending clinician (that is, physician, registered nurse, nurse practitioner, licensed practical nurse, physiotherapist, occupational therapist, or respiratory therapist) to ensure that the emergency treatment delivered aligns with the overall care plan. Currently, AHS community paramedics provide at-risk patients with immediate access to health care in the community by collaborating with available family and specialized physician services. These specially trained paramedics, in consultation with physicians, bring a broad range of medical services to the home, and can reduce 911-calls and the need for emergency department visits. Services that community paramedics can provide include: immediate assessment

followed by physician-facilitated diagnosis and treatment; advanced assessment such as respiratory, cardiac, or environmental; on-site diagnostics including specimen collection, ECGs, blood glucose, oxygen saturation, and $CO_2$ levels; and immediate on-site intervention including IV rehydration, pain management, suturing, medication administration, and facilitated prescription orders. This program is for patients with chronic health concerns that prevent them from accessing available healthcare services, and currently operates 365 days a year, 16 hours per day (from 6:00 a.m. to 10:00 p.m.).

The Primary Health Bus project, a pilot project that integrates paramedics with primary health care, was launched in Saskatchewan in August 2008. With support from the Ministry of Health, this project was designed to reduce barriers faced by people who are geographically, socially, economically, or culturally isolated in accessing healthcare services, by bringing services to them via bus. The project operates year-round, eight hours a day, seven days a week; registered nurses (nurse practitioners) and paramedics provide various services to residents of core neighbourhoods in Saskatoon. The mobile Primary Health Bus serves many populations, including First Nations, Métis, children, older adults, immigrants, refugees, and those with chronic diseases, with services including health promotion, education, treatment, follow-up care, and referral. Staff have been building strong and positive relationships with community residents, and theproject has successfully facilitated inner city residents to access healthcare services.

In British Columbia, a community paramedicine program has recently been initiated, implemented by British Columbia Emergency Health Services (BCEHS) in partnership with the Ministry of Health, regional Health Authorities, the Ambulance Paramedics of British Columbia, the First Nations Health Authority, and others. The objective of the initiative is to address two challenges rural and remote communities in British Columbiaface, namely recruiting/retaining paramedics, and issues in accessing health care due todistance of the nearest healthcare facility and recruiting/retaining healthcare professionals.

3.3 USA

In the United States, the term *community paramedicine* was first used in 2001 as a potential model of improving rural community health care. Many existing programs expand the role of EMS personnel while staying within the skill level of their scope of practice; personnel in such programs are usually called *community paramedics* or *community health paramedics*. Other programs expand the scope of practice of EMS personnel; those in such programs are called *advanced practice paramedics*.

Community paramedicine in the United States is an evolving method of community-based health care in which paramedics function outside their customary emergencyresponse and transport roles in ways that facilitate more appropriate use of resources and enhance access to primary care for underserved populations. A community paramedic is a paramedic or EMT who already operates in their service area or community, and who has taken advanced didactic and clinical education in anumber of areas, enabling them to identify the healthcare needs in underserved communities. These areas can include: health and wellness, health screening assessments, health teaching, administering immunizations, monitoring diabetic patients, monitoring post-myocardial infarction patients, advanced mental health issues and referral, wound care, and safety programs. Target populations may include frail and/or elderly patients, patients with lack of transportation, patients with cognitive/mental problems, 911 “superusers” (for example, people who suffer from homelessness and/or mental health problems), and patients who

need follow-up after being discharged from an emergency department or hospital.

Twenty (40%) states in the USA have a clearly defined legal mechanism for expanding the scope of practice of paramedics, however, only sixteen (32%) states have specific laws for community paramedicine practice [61]. To evaluate the perceptions of EMS professionals understanding of and willingness to participate in aCommunity Paramedic programme 283 (81% response) licensed EMS professionals across four USA states (Missouri, Arkansas, Kansas, and Oklahoma) were enlisted in an electronic survey [62]. The study found that the majority of respondents believe they understand Community Paramedic programs and perceive that their communities want them to provide Community Paramedic level care. Most respondents expressed a willingness to attend additional education and/or willingness to provide Community Paramedic care. These studies demonstrate the value of Community Paramedicine in terms of health care, costs and increased patient satisfaction.

There are community paramedicine programs in varying stages of development in more than 20 states (such as Alaska, North Carolina, Colorado, Minnesota, Maine, and Texas) and more than 150 communities. There are also 12 pilot projects underway in California. The majority of these pilot projects have paramedics providing transportation to destinations other than an emergency department, suchas a mental health clinic, an urgent care clinic, a physician's office, or a sobriety centre. Some of these pilot projects also allow paramedics to provide follow-up care after discharge from an emergency department/hospital.

Alaska's Community Health Aide Program has been in practice in remote villages in Alaska since the 1950's, when it was found to be an effective way for village workers to administer antibiotics to victims of the tuberculosis epidemic. It continued to further meet the healthcare needs of Alaskan Natives and became a federally fundedprogram in 1968. 178 rural villages in Alaska are utilizing Community Paramedics.

In Texas, Med Star's TX Alternative Destination/Alternative Transport Program is a cooperative of Med Star, the emergency physician's board, and public health. The three primary purposes for the Med Star Community Health paramedic are (1) Reduce the probability of providing acute emergency medical care for at risk patients and the medically underserved, thereby reducing unnecessary health care expenditures. (2) Increase the outreach activity and public education components of EMS providers and (3) Generation of potential revenue.

Wake County EMS in Raleigh, NC's program chooses the most experienced providers and utilizes them by serving dual functions; one end that is human services in natureand the other end that deals with high acuity calls such as cardiac arrest. "Studies show that diabetics, high blood pressure patients with congestive heart failure, those with increased risk of falls (such as people over 65 years of age), some substance abusers, and children with asthma may all significantly benefit by home visits from medical care providers like our Advanced Practice Paramedics."

In Minnesota, the Community Paramedic pilot program was funded by the Minnesota Department of Public Health and Office of Rural Health. The first providers were specifically selected from experienced paramedics. As part of their education, each provider conducted a community analysis to define gaps in healthcare, and then designed

each service to fit the needs of that specific community.

In San Francisco, they deal largely with the homeless population and repeat calls. Their goal is to connect these people with the resources that will ultimately reducetheir need to call EMS for transport to emergency departments.

In 2005, a community health assessment discovered that 46% of the people of the Western Eagle County Ambulance District in Eagle, Colorado were uninsured. Thirty eight percent showed difficulty in accessing medical care, and 80% of all emergency department visits were for non-emergent, non-acute issues. The community paramedics in this area are sent by physicians to the patient's homes to focus on preventative care, vaccinations, fall prevention, and blood glucose monitoring in addition, community paramedics assist individuals in finding the appropriate social service needs and helping to assure a safe home environment with heat, appropriatefood, and access to a primary care physician.

To address an issue of highly frequent paramedic transports for a small group of 911-callers, in April 2008, San Diego EMS initiated a pilot project, the Resource Access Program (RAP). RAP uses EMS system surveillance, case management, and referral to identify and modify medical and psychosocial factors associated with repeated 911 calls. The RAP Coordinator (an experienced paramedic) contacts (by phone or in-person) individuals with more than 10 EMS transports within the past 12 months as well as other high users referred by fire and EMS personnel, and identifies factorsassociated with their excessive use of acute care resources for primary care conditions (for example, lack of transportation, social support, and/or health literacy). The coordinator also liaises with primary care physicians, homeless services agencies, street outreach teams, hospital social workers, case managers, and adult protective services personnel. RAP clients receive education regarding appropriate use of EMS, and are connected with resources including equipment, transportation, housing, social services, mental health services, and primary care.

The term 'Mobile Integrated Healthcare', a model of Community Paramedicine, was first coined in North Carolina (USA) [63]. It is defined as 'a patient-centred, innovative delivery model offering on-demand, needs-based care and preventive services, delivered in the patient's home or mobile environment' [64].

The exception in the UAS is Massachusetts. In this state legislation specifies what type of Community Paramedicine may be provided within a 'defined list' www.mass.gov/MIH. Currently the list consists of four areas:

- Substance use disorders
- Housing Stability/Homelessness
- Mental illness and mental health
- Chronic disease with a focus on Cancer, Heart Disease and Diabetes

### 3.4 Australia

The Australian states of Queensland and New South Wales in response to challenges including increased ambulance demand, an aging population, rising prevalence of chronic disease, and decreased accessibility for unpredicted care and out-of-hours care were forced to review care delivery. Collaborating with other healthcare professionals, paramedics in their model of primary health care, extend access to primary health services

to promote disease and injury prevention while continuing to provide pre-hospital emergency care. There are some differences in paramedic practice between urban and rural areas. Rural paramedics adopt a whole community approach rather than a case dispatch approach, have multidisciplinary team members rather than operating mainly within ambulance teams, take additional responsibility as a teacher and manager for volunteers, and are highly visible members of the community rather than relatively anonymous.

There are several current community paramedicine programs that have been developed to meet the needs of rural and remote communities in Australia. Blackerand Walker grouped these programs into three broad categories, see Table 3.

Table 3 Community paramedicine program models in Australia

| Model | General description | Goal |
|---|---|---|
| Primary health care | Integrated health services in partnership with other health professionals to provide patient education, routine primary care services outside the clinic or hospital environment, post-discharge care, and chronic disease monitoring | To prevent admission or readmission to hospitals or nursing homes |
| Substitution | Place specifically trained EMS personnel to operate clinics or emergency departments where geographic isolation leaves no other trained medical personnel such as nurses, or general practitioners | To assure access in isolated areas |
| Community coordination | Use specially trained EMS staff to direct patients to the appropriate place of care the first time | To avoid transport to emergency departments when transfer to some other care is certain |

The *primary health care model* was developed in Queensland and New South Walesin response to challenges including increased ambulance demand, an aging population, rising prevalence of chronic disease, and decreased accessibility for unpredicted care and out-of-hours care. Collaborating with other healthcare professionals, paramedics in this model extend access to primary health services to promote disease and injury prevention while continuing to provide pre-hospital emergency care.

The *substitution model* has been implemented in some country hospitals in South Australia in response to the physician shortage there, as well as in the emergency department of the Alice Springs Hospital (the main acute care hospital for Central Australia) in response to the nurse shortage there. Paramedics in this model provideleave coverage for medical and nursing staff. Contracts or official agreements between paramedics and hospitals/health departments have been developed to permit paramedic practice in these settings.

The *community coordination model* has been implemented in Southeast Victoria, Tasmania, and Western Australia, with focuses on recruiting, retaining, and supporting existing volunteers while providing support to existing health serviceswhen needed.

### 3.5 New Zealand

St John Ambulance provide the state ambulance service in the majority of New Zealand. St John Ambulance has introduced ‘Safe and Well' pathways which are utilised when patients have been assessed as safe to stay at home but may have healthcare or social needs that are not being met.

Wellington Free Ambulance (WFA) initiated a new model of care in May 2009 entitled

*Urgent Community Care (UCC),* in the Kapiti Coast District. This area of 48,900 inhabitants (June 2009) includes a high proportion of over-65s (twice the national average) and is situated an hour by road from the nearest acute general hospital. The UCC initiative directs ambulance staff trained in additional clinical skills to patients withconditions amenable to treatment in their own homes or local communities. This has shifted the focus of the ambulance service towards taking healthcare to the patient andaway from automatically transporting the majority of patients to hospital.

The key features of this model are:

- The appointment of Extended Care Paramedics (ECPs) to assess and treat patients in their homes and local communities
- Improved patient experience, especially for the elderly and those with mobility problems
- Avoidance of unnecessary transfer to hospital4,5 as well as a reduction in the numbers of patients with minor conditions having to wait longer for treatment in the ED
- More effective allocation of emergency ambulances and improved response times for potentially life-threatening conditions [65]

3.6 Tasmania

The role of this Community Paramedicine practitioner, while maintaining a key function of responding to emergency cases, is to:

- Train, manage & recruit volunteers
- Engage with community in providing first aid education
- Assist hospital staff in triage and cannulation
- Treat patients in the home & community
- Train hospital staff in emergency procedures

**Recommendation 4:** PHECC to set standards and educational outcomes for the Community Paramedicine Practitioners going forward.

- International models and the NAS experience could help with the setting of these standards and educational outcomes

## 4 Potential Development Models

4.1 Potential contributions to the Irish Healthcare system

Equitable access to healthcare is an essential component of Sláintecare. The social determinants of health (SDOH), i.e. the social, economic, and political conditions that influence the health of individuals and populations, involve both 'downstream' efforts to increase access to health and social services or resources at the individual or family level, and 'upstream' efforts to reform the distribution of power, wealth, opportunities, and decision-making at the societal/ governmental level [66]. Health equity is an overarching theme for the Social Determinants of Health. Ireland continues to struggle with rural healthcare delivery, particularly emergency care, dueto population sparsity and distances to acute hospitals. The introduction of Community Paramedicine is an opportunity to combine emergency care and primary care in these regions.

An ambulance is a means of transport for an ill or injured patient. Consideration should therefore be given to deploying Community Paramedicine practitioners in areas with an emphasis on primary care and integrated into emergency response. The Community Paramedicine practitioner once deployed to an emergency medical incident can make a clinical assessment and determine the appropriate clinical care pathway. If a hospital intervention is required, an appropriate means of transport to acute care will be deployed.

The provision of pre-hospital emergency care is challenging throughout the western world. When PHECC was established its first Director, the late Dr Geoff King, identified that Ireland was 25 years behind other western countries in relation to pre-hospital advanced life support provision. We have come a long way in the last 25years and the integrating of Community Paramedicine and pre-hospital emergency care in Ireland will be part of that evolving journey. Community Paramedic has demonstrated to be an effective model. Community Paramedicine in its various guises is an active component of EMS in many western countries for over the last three decades.

**Recommendation 5:** PHECC to explore the integration of Community Paramedicine with Primary and Acute Care.

4.2 Co-Operation And Working Together (CAWT) supported Pilot Community Paramedicine programme

Ireland embarked on a pilot Community Paramedicine programme in September 2017. The objective of this Cross Border service was to improve healthcare access and outcomes to disparate populations who reside in the CAWT eligible border counties of Ireland, Northern Ireland and the Periphery of Scotland. It was also an opportunity to avail of European Union funding for the Pilot Project in which the Northern Ireland Ambulance Service, Scottish Ambulance and National Ambulance Service worked in partnership to develop the Community Paramedic role using the same scope of practice across the 3 jurisdictions. This collaborative working between the 3 Ambulance services was a ground-breaking concept. In recognition of this and by meeting the core criteria for a cross border project the Special European Project Board (the SEUPB) initially designated €1.1 million funding to the Project and after a 1-year review granted a further €1.1 million to extend the project due to the successful patient outcomes and experiences. The Pilot therefore extended from an 18-month project to a 3-year project, due to complete in August 2020.

PHECC acknowledged the programme, however, had no input into the programme. To date PHECC has not received any formal reports in relation to the programme and deployment of Community Paramedics in Ireland. CAWT however invited the Chair of the PHECC Community Paramedic Subgroup to their two Annual Workshops during 2018 and 2019. He kindly attended both workshops and participated in the review and future planning sessions within those workshops alongside representatives of the three Ambulance Services, GPs involved in the Project and CAWT CEO & Project Officers.

The objectives of the cross border funded project were to establish; if additional education could prepare paramedics to operate as Community Paramedicine, if itwould be cost effective to the health system and to demonstrate that CommunityParamedicine practitioners could effectively and safely provide care to patients inthe community.

The education was provided by Glasgow Caledonian University (GCU) following a tender process. This education was a Master of Science qualification delivered over athree-year period. The Community Paramedic is qualified to practice following successful completion of Year One, Year one was supported by designated General Practitioners who provided the clinical supervision and support for the trainee Community Paramedic.

The second year saw the Community Paramedic become more autonomous and develop a research proposal on a distance learning basis whilst practising as an NAS Community Paramedic. At this stage a criterion of calls, agreed by the NAS Medical Director and the NAS & CAWT Review Subgroup was implemented enabling dispatch by the National Emergency Operations Centre (NEOC) of a basket of low acuity patients to the Community Paramedics. The Community Paramedics remained attached to GP practices for some of their rota, and this remains the care model. The GPs involved in the project have been essential stakeholders in shaping the role of the Community Paramedicine programme and supporting the Community Paramedic expanded clinical practice through supervision and daily liaison and/or clinical advice. They are crucial to the training of Community Paramedics and furthermore to the role becoming an integralpart of care delivery in and close to the patient's own home, which is the optimal goal for patients and the Irish health services.

Four advanced paramedics, from the National Ambulance Service, were recruited in late 2017 to partake in the education and service pilot. A further two Community Paramedics are being trained in Ireland, due to complete their Year 1 studies by the end of 2020. It was possible to train two additional Community Paramedics in Irelanddue to the success of the Pilot Project and the relocation of one trained Community Paramedic outside of the CAWT eligible area (who is currently practising as a Community Paramedic in Dublin) and one other NAS staff member leaving the post due to a career promotion.

Data from the CAWT pilot Community Paramedicine programme is indicating that Community Paramedicine is an effective option for safe and effective care within the community, see table 4. Please note the patients who received definitive care in the community represents all patients encountered during the training programmeincluding those attending GP practices.

Table 4 Patients cared for by Community Paramedicine practitioners during the Irish pilot programme

| Description | Number (%) |
|---|---|
| Encountered by Community Paramedicine practitioners | 2,698 |
| Met criteria for Community Paramedicine practitioner care | 2,655 (100%) |
| Definitive care provided in the community | 2,318 (87.5%) |
| Transported for ED care | 337 (12.5%) |
| Hospital admission | 62 (2.3%) |

While the full cost effectiveness of Community Paramedicine has yet to be established the data from the pilot programme indicates that patients can be treatedeffectively in the community by appropriately educated paramedics. This allows resources to be deployed to other area and patients to be streamed to appropriate clinical care pathways.

As outlined above there is sometimes a mismatch between the perceived level of acuity by patients/ family members and the actual level of acuity. Paramedics responding to

such incidents could utilise a Community Paramedicine practitioner asa referral clinical care pathway which would give an additional clinical safety net for patients while maintaining them in the home.

An emerging trend arising from the NAS monthly review of the patient statistics fromthe CAWT Project is that the basket of calls from NEOC to the Community Paramedics result in a higher volume of patients requiring conveyance and review in the Hospital ED, when compared with the GP referred patients to the Community Paramedics. Careful analysis of this differential is being undertaken currently.

CAWT have conducted a Patient Satisfaction Survey in which Patients and family members have expressed high levels of satisfaction with the care provided by the Community Paramedics during the pilot programme. This is exemplified in the quotations from family members as below:

> *"Community Paramedics are now available to come to my father's home and attend to his needs in a short space of time. When we made contact with this service, the Community Paramedic arrived and treated my father quickly and without much discomfort. The paramedic's expertise and care were a pleasure to witness. This is an efficient, professional service which reduces pressure on hospital emergency departments and allows the safe care of my father in his own home." A son of a father in his 90s living in the border region of Ireland.*

These Findings included role enhancement for paramedics, collaborative working with other health care professionals, potential efficiencies in treating patients in the community which has avoided unnecessary transportation to ED. Family appear satisfied with outcomes. This has help in freeing up resources in the community andhospitals which will be of continued benefit into the future.

Recently one of the NAS Community Paramedicine practitioners has changed from a rural setting to a Dublin metropolitan area to trial the project in this environment. The findings from this initiative are being monitored currently.

The Community Paramedicine programme was award winning in both EU and Ireland. The EU Commission's RegioStars Awards recognises the most original and innovative Cohesive Policy projects. The CAWT Community Paramedicine project has been nominated under the 'Modernising Health Services' category and among the 5 finalists in that category.

The pilot Community Paramedicine programme was the winner of the Sustainable Healthcare Project of the Year in the Irish Healthcare Awards 2019.

4.3 Qualitative review of the Community Paramedicine programme

To inform this report a semi-structured interview was conducted by Brian Power with each of the four Community Paramedicine programme participants and the twogeneral practitioners (GPs) involved in the clinical placements of the programme to elicit their opinions on the programme, Community Paramedicine services and future developments. A thematic approach was utilised to combine the findings and to maintain

participant confidentiality particularly with the low numbers involved.

All the views within 4.3 were expressed by the respondents involved and do not represent an opinion from this report.

(i) The Glasgow Caledonian University programme modules were reviewed.
In the main the modules were found to be very useful, particularly clinical assessment and decision making. Difference emerged, however, between the Scottish and Irish healthcare system which made some of the content difficult to assimilate into the Irish context. Applied pathophysiology, while giving a very focused education on the pathophysiology of one illness, would have been more beneficial if it had a broader base of several common illnesses.

(ii) When asked to make recommendations for future education of Community Paramedicine practitioners the respondents made the following suggestions:

- Include more chronic conditions to make a more generalist approach.
- The advanced paramedic level was very beneficial as an entry criterion and should be strongly considered.
- A period of internship post training would support and encourage confidence and competence.
- Urinary catherisation and urinalysis were not part of the course and were introduced as a local module which have been found to be most beneficial to practice.
- Inclusion of Irish healthcare structures and in particular primary care structures would be helpful.
- Palliative care and geriatric care modules should be included.
- Activities of Daily Living assessment which assists decision making in relation to remaining at home safety could also be added to the programme.

(iii) When asked to outline the most common presentations encountered during training and practice the respondents specified:

- Urinary catheterisation
- Respiratory issues
- Falls in the elderly
- Chronic illness
- Urinary Tract Infection and
- Respiratory Tract Infection

(iii) When asked to outline the most common medications utilised the respondents outlined:

- Hydrocortisone
- Pain management
- Buscopan
- Pulmicort

The respondents expressed slight frustration in that they were limited to the advanced paramedic medications and did not have access to IV antibiotics, particularly for UTIs and RTIs.

(v) When asked to describe the benefit to the patients encountered the most common response was that the 'The patients are so glad that you are keeping them out of hospital'.

The GP respondents describe the reduction of ED visits is the most positive result. Community Paramedicine practitioners have more extensive equipmentthan a GP on a home visit and can make an objective clinical decision in the home setting.

A detailed response to the qualitative interviews is available in Appendix 1.

A follow up e-mail was received from one of the GPs making additional observations and recommendations for future developments.

> *"I should have mentioned some other things I think are important for the development of Community Paramedicine.*
> *The practical skills of suturing, catheterisation are very important.I feel the development of an extended prescribing should be considered. Presently the inability to prescribe certain meds orally such as steroid and some antibiotics. The London Ambulance Service havegiven this privilege to their Community Paramedics. The Community Paramedic having the ability to refer to other disciplinesin the Primary Care Team here has been important and very useful.*
> *Finally, as a choice for career development, Community Paramedicine should be equal in stature to Advance Paramedics, Critical Care Paramedics. Whether Community Paramedics should be advanced Paramedics with a certain number of years' service is something which might be considered. It is my belief that the decision to treat and discharge is one of the weightiest decisions that any Community Paramedic can make., something perhaps APs and Critical Care Paramedics will not be asked in the main to do." Dr Seamus Clarke.*

**Recommendation 6:** As there is limited experience of Community Paramedicine in Ireland the experience of the role resides with those stakeholders involved in the CAWT funded pilot project and other existing community-based pilot project participants. PHECC to engage with them when deliberating on Community Paramedicine, taking cognisance of the evaluation of the CAWT Project which will be completed in Q4, 2020 following cessation ofthe CAWT Project on 31st August 2020.

4.4 Clinical Governance

In a number of countries, the oversight of paramedicine clinical standards is undertaken within clinical governance frameworks using the same principles as those used across a wide range of other health services. Medical practitioners in these countries generally fulfil advisory roles within paramedic services, with limited executive authority [4].

Within the Community Paramedicine program context, moving toward an interprofessional practice and regulatory system has the advantage of giving paramedics the opportunity to develop greater levels of professional autonomy and accountability. Interprofessional practice "involves working together to achieve a common purpose of healthcare delivery, with mutual respect and improved health

outcomes in contrast to different professions simply working side by side" [67].

The New Mexico (USA) Health and Human Services commenced a Community Paramedicine project in Red River in 1995, however, it was terminated in 2000 primarily due to lack of appropriate governance. This was despite no negative comment or complaint registered by any resident of the community, care providedto hundreds of patients with no reported patient care complaints, lawsuits, or complications, and overwhelming support by area physicians, nurses and allied healthcare services providers.[68].

In Ireland privileging is the process by which a Licensed CPG Provider empowers their practitioners to provide specific interventions and administer specific medications, on the Licensed CPG Provider's behalf, to the patients encountered. Privileging, therefore, defines the scope of practice of the PHECC registered practitioners. A practitioner's scope of practice is directly governed by the Licensed CPG Provider for whom they are providing care. Privileges should be commensurate with a practitioner's competency and CPG training status.

**Recommendation 7:** PHECC to establish a sub-group under MAC to set clinical standards for the Community Paramedicine programme.

- The sub-group may include representative(s) from ICGP, the Community Paramedics qualified in Glasgow Caledonian University (GCU) as part of the CAWT Project, paramedics who have completed the Irish Community Paramedicine programme, a primary care/ general practitioner academic, a representative from the NAS Medical Directorate, a patient representative, other existing community-based pilot project participants and other persons determined by MAC.

**Recommendation 8:** Robust clinical governance structures, on the part of Licensed CPG Providers, including supervision, mentoring and clinical audit are required.

# 5 Potential scope of practice

## 5.1 PHECC regulations

### 5.1.1 Credentialing

Credentialing is the process of assessing and confirming the qualifications of a healthcare practitioner. It is the systematic method of reviewing and ensuring that registered practitioners possess the education, experience and skill to fulfil the requirements of the position. PHECC is a statutory awarding body that may award the National Qualification in Emergency Medical Technology (NQEMT).

Credentialing informs Licensed CPG Providers, employers, and patients what to expect from a credentialed/ registered PHECC practitioner.

5.1.2 Licencing

Licencing is a process whereby a competent authority grants an organisation approval to engage in specific activities. PHECC has statutory authority to approve organisations to use PHECC clinical practice guidelines (CPGs). The process of licensing service providers involves a combination of staff vetting, language competency, education and training to maintain currency with CPGs and other continuous professional competency (CPC) requirements. In addition, organisations must demonstrate compliance with clinical audit, medical direction and adverse clinical incident reporting systems along with evidence of appropriate vehicles and relevant equipment. Service providers may not legally practice in Ireland without a PHECC licence as access and authority to administer medicinal products is legislatively linked to PHECC CPG approval.

5.1.3 Privileging

Privileging is the process by which a Licensed CPG Provider empowers their practitioners to provide specific interventions and administer specific medications,on the Licensed CPG Provider's behalf, to the patients encountered. Privileging, therefore, defines the scope of practice of the PHECC registered practitioners. A practitioner's scope of practice is directly governed by the Licensed CPG Provider for whom they are providing care. Privileges should be commensurate with a practitioner's competency and CPG training status.

5.2 Legal implications for a Community Paramedicine practitioner level. The law is silent on the definition of 'pre-hospital emergency care' therefore a Community Paramedicine practitioner's scope of practice could be incorporated intopre-hospital emergency care.

SI 575 of 2004 defines a 'pre-hospital emergency care practitioner' as "a person who holds the N.Q.E.M.T. at any of the levels of competence and whose name appears within any division of the register". A Community Paramedicine practitioner therefore **may not** be legally described as a pre-hospital emergency care practitioner.

SI 575 of 2004 S4. (a) specifies the recognition of institutions providing education at the level of EMT, paramedic and advanced paramedic. PHECC therefore **does not** have the statutory authority to recognise an institution providing education in Community Paramedicine.

SI 575 of 2004 S4 (b) & (c) specifies an award of NQEMT for EMT, paramedic and advanced paramedic. PHECC therefore **does not** have the statutory authority to awarda qualification in Community Paramedicine.

SI 575 of 2004 S4 (h) (i) specifies that PHECC, "in consultation with institutions providing, or proposing to provide at any time in the future, education and training in pre-hospital emergency care, approve of the content of courses for such education and training". PHECC therefore **has** the statutory authority to approve a training programme in Community Paramedicine.

SI 575 of 2004 S4 (o) specifies that PHECC, "prepare clinical practice guidelines for pre-hospital emergency care and make such guidelines available to pre-hospital emergency care service providers and such other persons as it may consider appropriate". PHECC therefore has the statutory authority to prepare CPGs for Community Paramedicine.

SI 575 of 2004 S4 (q) specifies that PHECC, "prepare standards of operation for pre-hospital emergency care service providers to support best practice by pre-hospital emergency care practitioners.". PHECC therefore **has** the statutory authority to prepare standard of operations for Community Paramedicine.

SI 575 of 2004 S4 (r) specifies that PHECC, "recognise, in accordance with rules made by Council, those pre-hospital emergency care service providers which undertake to implement the clinical practice guidelines prepared pursuant to sub-article (o) of this Article.". PHECC therefore **has** the statutory authority to licenced CPG providers for Community Paramedicine practice.

SI 575 of 2004 S4 (S) specifies PHECC, "establish and maintain, in accordance with rules made by the Council, a register of pre-hospital emergency care practitioners (in this instrument referred to as the register) which shall be divided into six divisions as follows: (i) EMT division and (iv) temporary EMT, (ii) paramedic division and (v) temporary paramedic, (iii) advanced paramedic division and (vi) temporary advanced paramedic." PHECC therefore **does not** have the statutory authority to register Community Paramedicine practitioners as a specific division on the register.

SI 575 of 2004 S37. (1) The Council may establish a Fitness to Practice Committee (hereinafter referred to as the Committee), consisting of such persons (whether members or non-members of the Council) as may be appointed by the Council, to conduct inquiries into allegations of professional misconduct or unfitness (or both) toengage in the practice of pre-hospital emergency care on the part of persons whose names are entered on the register. As a Community Paramedicine practitioner is not registered on the PHECC statutory register they **cannot** be subject to a fitness to practice investigation.

SI 510 of 2005 authorises the legal administration of prescription only medications (POMs) by PHECC registered practitioners through the Seventh Schedule. The Seventh Schedule has three distinct parts, Part 1 for advanced paramedics, Part 2 for paramedics and Part 3 for EMTs. As Community Paramedicine practitioners are not specified on the Seventh Schedule, they **may not** legally administer POMs.

5.2.1 Potential solutions to the legal dilemma facing PHECC in relation to Community Paramedicine practice.

(i) Council to define pre-hospital emergency care and incorporate Community Paramedicine practice into the definition.
(ii) A change is required to PHECC legislation:
   a) SI 575 of 2004 S4 (a) to be amended to include Specialist Paramedic (which will incorporate Community Paramedicine practitioner and Critical Care Paramedic).
   b) SI 575 of 2004 S4 (b) & (c) to be amended to expand the award of NQEMT to include Specialist Paramedic (which will incorporate Community Paramedicine practitioner and Critical Care Paramedic).
   c) SI 575 of 2004 S4 (s) be amended to expand the register divisions to include 'Specialist Paramedic'. This will facilitate the inclusion Community Paramedicine practitioner, Critical Care Paramedic and other future developments.
   d) SI 510 of 2005 to be amended to add an addition Part onto the Seventh

Schedule to accommodate a Specialist Paramedic (to include Community Paramedicine practitioner and Critical Care Paramedic).

(iii) A short-term fix is to expand the levels on the advanced paramedic division of the PHECC register to include 'advanced paramedic /community paramedic practitioner'. These levels currently include undergraduate intern and postgraduate intern. If paramedic level is also included in the entry criteria for Community Paramedic education, then a similar fix will be required for the paramedic division on the register.

(iv) Another short-term fix is to request the Minister for Health, as utilised for the Covid-19 register, under SI 575 of 2004 S4 (p) to establish a Specialist Paramedic division on the PHECC register.

**Please note this is an interpretation of the current legal situation and does not constitute a legal opinion.**

**Recommendation 9:** Urgent legislation change is required to accommodate Community Paramedicine training, qualification awards and registration.

- Change is also required to facilitate prescription only medication administration by Community Paramedic practitioners.

5.3 Clinical practice guidelines

PHECC has a statutory function of preparing Clinical practice guidelines (CPGs). CPGs are linked through legislation to facilitate the legal administration of prescription only medications. CPGs are therefore a requirement to enable Community Paramedicine practitioners to practice legally. The design, layout or content is not defined in law therefore PHECC may decide the format of CPGs for Community Paramedicine interventions. The new concept of Clinical Practice Procedures (CPPs) which was introduced by PHECC is probably more applicable to Community Paramedicine practice.

5.4 Practitioner prescribing

Community Paramedics assess the patient's needs and, in the main, continue the care plan as formulated by the patient's GP. To restrict the medications available for a Community Paramedic use to a list such as the Seventh Schedule will result in significantunproductive time contacting the GP to issue a prescription if the specific medication is not on the list. Feedback from the Community Paramedics on the pilot scheme and the GP practices involved is that Community Paramedic prescribing would be a significant advantage to the care provision. This will enable a better use of their skills and improve patient experience by providing timely access to medicines and care closer to home.

The UK law changed in 2018 to permit paramedics to train and work as non-medical prescribers [69]. The criteria for access to a UK paramedic prescribing course are specified such that only those who are suitably educated, with employment in a role that requires prescribing as a core component, and access to a designated medical supervisor would be eligible. A similar change occurred in Ireland in 2006 which enabled nurses to become prescribers (Irish Medicines Board (Miscellaneous Provision)Act, 2006). This law gave powers to the Minister of Health to make regulations to enable registered nurses to prescribe medications.

**Recommendation 10:** Legislation change is required to enable Community Paramedicine Practitioners prescribe medications as autonomous practitioners.

5.5 Scope of practice and clinical procedures

Community Paramedicine programme under the auspice of the Alberta Health Services in Canada include the following procedures:

Treatments available by Alberta Community Paramedicine practitioners include:

- CVC & IV rehydration
- IV, SQ, IM, PO, PORT & PICC medication administration including IV antibiotics
- 53 stocked medications
- blood transfusions
- urinary catheterization
- wound closure & care (tissue adhesive, sutures, dressings)
- oxygen and nebulizer therapy
- prescription facilitation
- coordination of community services
- observational and focused assessments

The potential scope of practice is outlined in table 5 below. This was compiled following a review of the literature and feedback from the practitioners and GPsinvolved in the pilot Irish Community Paramedicine programme.

*Table 5 Potential scope of practice for Community Paramedicine practitioners*

| |
|---|
| 12 lead ECG |
| Assessment of daily living |
| Assessment of the home |
| blood transfusion |
| Care plan review |
| Chronic disease management |
| Depression screening |
| Epistaxis |
| Exacerbations of chronic condition management |
| Falls prevention |
| Follow up home visits to frequent users or ED or Ambulance |
| Follow up home visits for patients post discharge to reduce 30-day readmission rates |
| Follow up home visits after ED discharge to facilitate primary care transition |
| Foreign body removal (ENT) |
| Health screening |
| Vaccinations |
| Incision and drainage of abscesses |
| IV rehydration |
| IV, SQ, IM, PO, PORT & PICC medication administration |
| Joint reduction (minor dislocations) |

| |
|---|
| Medication management and compliance |
| Minor burns |
| Minor wounds and lacerations, animal bites |
| Nebuliser therapy |
| Observational and focused assessments i.e. frailty assessment |
| Oxygen therapy |
| Patient assessment |
| Palliative care |
| Percutaneous endoscopic gastrostomy (PEG) re-insertion |
| Phlebotomy |
| Point of care testing |
| Protocol led dispensing |
| Splinter removal |
| Splinting |
| Tetanus toxoid vaccination |
| Toothache |
| Tracheostomy tube replacement |
| Urinary catheterisation |
| Wound closure & care (tissue adhesive, sutures, dressings) |

# 6 Education and Competency

## 6.1 Community Paramedicine practitioner education

Despite expanding upon the paramedicine role, many countries have no professional education standard for Community Paramedicine, including Ireland. A systematic review identified 58 unique Community Paramedicine programs with a wide range of target populations and services. Community Paramedicine training, although poorly reported, was equally diverse and included a variety of skills that were unique from the traditional paramedicine role. The highly collaborative nature of Community Paramedicine may warrant more training on related skills such as communication, leadership, and teamwork. Effective implementation and growth of Community Paramedicine may also be aided by clearer definitions of the Community Paramedicine role. Furthermore, enabling Community Paramedicine programs to gather and disseminate evidence on training and program outcomes may better inform CommunityParamedicine education frameworks and support program growth [70]. Community Paramedicine practitioners receive additional education, training and clinical experience in primary and urgent healthcare to meet diverse patient needs.

Many of the Community Paramedicine programmes in the USA are at certificate level with some as low as 80 hours duration. These programmes typically focus on broad principals. Community Paramedicine programmes in the USA frequently focus on a niche community need and/or an ambulance service requirement, i.e. frequent users. The paramedic profession in the USA works directly under the control of a medical practitioner thereby they are regarded as technicians and are not necessarily educatedto be autonomous practitioners. USA continues to hold onto the WWII philosophy of task-oriented training, i.e. train them to do not to think. Patient assessment for undifferentiated presentations

with this minimal education would not lend itself to confident decision-making practitioners and would result in the status quo except a longer timeframe to arrive at ED care.

An established Community Paramedicine programme under the auspice of the Alberta Health Services in Canada include the following modules:

- Gerontology
- Advanced pharmacology
- Social determinants of health
- Palliative care
- Transfusion medicine
- Dementia, delirium & and depression
- Increase scope of practice including urinary catheterization, suturing, blood transfusions, central venous catheter/PICC and specimen collection
- Advanced respiratory and cardiopulmonary assessments
- Public Health
- Clinical rotations with Physicians and Nurse Practitioners
- Health records management and information technology tools
- Communication
- Understanding of existing community healthcare resources and responsibilities

Treatments available by Alberta Community Paramedicine practitioners include:

- CVC & IV rehydration
- IV, SQ, IM, PO, PORT & PICC medication administration including IV antibiotics
- 53 stocked medications
- blood transfusions
- urinary catheterization
- wound closure & care (tissue adhesive, sutures, dressings)
- oxygen and nebulizer therapy
- prescription facilitation
- coordination of community services
- observational and focused assessments

6.2 Curriculum design

A number of institutions must be involved in the curriculum design:

**The Regulator**

The Pre-Hospital Emergency Care Council has a statutory responsibility to set standards of education for pre-hospital emergency care. PHECC also registers practitioners that provide this care. PHECC is therefore a key stakeholder.

**Licensed CPG Providers**

Commitment from Licensed CPG Providers, particularly the statutory services, to the deployment of Community Paramedicine practitioners during community placements is essential for the successful implementation of the training programme.

**Registered Medical Practitioners**

The participation of general practitioners and other primary care practitioners is key to the success of the Community Paramedicine model as they have a major role in supporting training of the Community Paramedicine practitioners during clinical placements.

**Recognised Institute / University**

In order to develop the Community Paramedicine programme, education must occur thorough a PHECC Recognised Institution or a university willing to teach the curriculum, co-ordinate the clinical placements, and provide academic credits. Agreement from an academic institution early in the process is paramount to make sure that education is available for the program. Academic leadership should be through a public health /general practice academic who will have a broad perspective of primary care. The course tutors will have an understanding of the EMS system, the roles of the various levels of practitioner (EMT, paramedic, advanced paramedic, general practitioner, public health nurse, advanced nurse practitioner, specialist nurse practitioner, occupational therapist and social worker) plus, experience working within the health care system, and familiarity with community resources. As with the ICGP an MOU with the institution is critical to have in place before training begins.

6.3 Foundation education and experience

A key theme indicated that paramedics with at least 5 years clinical experience were considered more suitable for Community Paramedicine practitioner roles than their less experienced peers. Consistent with this was the belief by some, that paramedics in pursuit of 'high adrenaline' advanced care or trauma practice might not be suited to Community Paramedicine practitioner roles. The findings indicate that experienced and highly motivated individuals with excellent communication and interpersonal skills are desirable candidates for Community Paramedicine practitioner roles [55]. This principle was endorsed by the practitioners in the pilot Irish Community Paramedicine Programme.

6.4 Education Domains / learning outcomes

The Glasgow Caledonian University, School of Health and Life Sciences, MSc Advanced Paramedic Practice, was the education programme that was used for the CAWT pilot Community Paramedicine programme.

**Module Descriptors**

MMB724201 Advanced Assessment and Management of Minor Injuries (15 M Credits)
MMB724202 Advanced Clinical Assessment and Decision Making in Acute and Primary Care (15 M Credits)
MMB722903 Supporting Anticipatory Care for Long Term Conditions (15 M Credits)
MMB723442 Applied Pathophysiology for Advancing Professional Practice (15 M Credits)
MMB723191 Evaluating Evidence to Develop Research and Inform Practice - online (30M Credits)
MMB722342 Masters Framework Dissertation (60 M Credits)

Caution however is advised not to adapt the Caledonian programme as a definitive package as feedback from the practitioners and GPs in the pilot Irish Community Paramedicine Programme highlighted that several key Community Paramedicine skills such as urinary catheterisation were not included in the training.

6.5 Clinical placements

Feedback from the practitioners and GPs in the pilot Irish Community Paramedicine Programme identified that a major benefit was being attached to a particular primary care practice for the majority of the clinical practice. Injury units were particularly beneficial, however there was consensus that more time would enhance the confidencein assessing and managing minor injuries. Many Community Paramedicine programmes in North America have a mental health component and as the default for acute mental health issues is an ED attendance, unless the patient is 'sectioned', it might be beneficialto explore this area. The HSE Palliative Care Competence Framework [71] specifies that all healthcare persons should have one of three levels of palliative care training.

Community Paramedicine practitioners are not regarded as specialist palliative care practitioners; however, they do require the Level 2 – General Palliative Care training,and this could be augmented with clinical placements in a community hospice and a hospice homecare team.

A clinical facilitator is primarily responsible for the clinical management and leadership of the student in the clinical practice environment. The role is paramount in supporting the student, advising on student clinical issues, and identifying learning needs and ways of addressing them. A clinical facilitator is therefore an essential component to ensure maximum benefit is obtained from clinical placements. It is paramount therefore that a practitioner with the appropriate educational skills and Community Paramedicine practice experience is appointed to support the Community Paramedicine training programme.

**Recommendation 11:** An appointment of clinical facilitator(s) with appropriate education skills and Community Paramedicine practice experience is required to support the programme.

**Recommendation 12:** That the PHECC Education and Standards committee develop the educational requirements to support the roll out of Community Paramedic Practitioner training.

6.6 Core competencies

**Autonomy in Clinical Practice**

The focus of Community Paramedicine is to maintain, where possible, the patient in a community setting and avoid hospital admissions. An autonomous practitioner is accountable and responsible for clinical decision-making which occur through management of specific patient cohorts. Community Paramedicine practitioners may conduct comprehensive health assessment and demonstrate expert skill in the clinical diagnosis and treatment of acute and/or chronic illness from within a collaboratively agreed scope of practice framework in conjunction with other healthcare professionals.

**Decision making**

The crucial factor in determining Community Paramedicine practice, however, is the level of decision-making and responsibility rather than the nature or difficulty of the task undertaken by the practitioner. Paramedic knowledge and experience should continuously inform the Community Paramedicine practitioner decision-making, even though some parts of the role may overlap the other healthcare professional roles. They therefore must demonstrate the ability to make accurate, evidenced based and timely decisions in relation to clinical decision for the management of the patient while ensuring that relevant professional, ethical and patient safety factors are fully considered in decisions. The Community Paramedicine practitioner must recognise when it is appropriate to seek advice from experienced colleagues and/or refer decisionsto a higher level of authority.

**Expert Practice**

Expert practitioners demonstrate practical and theoretical knowledge and critical thinking skills that are acknowledged by their peers as exemplary. Community Paramedicine practitioners must demonstrate a 'patient-centred' approach to practice ensures patient safety and quality are at the centre of their practice. They must also demonstrate the ability to articulate and rationalise the concept of paramedicine practice. Patient care planning is a crucial area of expertise for the Community Paramedicine practitioner therefor assessment of symptoms and diagnoses based on objective and subjective measures, as appropriate, using appropriate diagnostic aids andtests must be at a very high level. A Community Paramedicine practitioner could not practice effectively without a thorough knowledge of chronic clinical conditions and their management in the community. To ensure accurate clinical records the Community Paramedicine practitioner must maintain, review and updates patient clinical records in a manner respectful of the confidentiality of patient information and in line with legal requirements.

**Professional and Clinical Leadership**

Community Paramedicine practitioners are pioneers and clinical leaders in that they may initiate and implement changes in healthcare service in response to patient need and service demand. They must inspire confidence and be assertive while leading by example and acting to ensure patient safety and quality. They must have a vision of areas of paramedic practice that can be developed beyond the current scope of paramedicine practice and a commitment to the development of these areas.

Contribution to the initiation, development and continuous improvement of services for patients builds credibility and portrays paramedicine in a positive light by being professional and well informed. This should be done in collaboration with other healthcare practitioners to meet a growing need that is identified both locally and nationally by healthcare management and governmental organisations. Community Paramedicine practitioners participate in educating paramedic and EMT practitioners, and other healthcare professionals through role-modelling, mentoring, sharing and facilitating the exchange of knowledge both in the classroom, the clinical area and the wider community. The Community Paramedicine practitioner should act as a patient advocate to ensure that patient care is not jeopardised, monitors the healthcare needs of the patient and makes recommendations for improvement to the patient and other healthcare professionals as appropriate. Finally, Community Paramedicine practitioners must demonstrate an awareness of legislation relevant to their practice setting.

**Research**

Community Paramedicine practitioners are required to initiate and co-ordinate Community Paramedicine audit and research. They identify and integrate paramedicine research in areas of the healthcare environment that can incorporate best evidence-based practice to meet patient and service need. They are required to carry out paramedicine research which contributes to quality patient care and which advances paramedicine and health policy development, implementation and evaluation. They demonstrate accountability by initiating and participating in audit of their practice. The application of evidence-based practice, audit and research will inform and evaluate practice and thus contribute to the professional body of paramedicine knowledge both nationally and internationally.

**Teamwork**

The Community Paramedicine practitioner does not provide care in a silo fashion, they must therefore recognise the value and structure of a multi-disciplinary team. Collaboration with other healthcare practitioners is an essential trait to manage the care of a patient in a holistic manner. Continuity of patient care is best ensured through effective handover between team members or to another healthcare practitioner.

Participating and providing advice on therapeutic decision-making and use appropriate referrals will enhance teamwork a multi-disciplinary team situation. The Community Paramedicine practitioner must demonstrate a broad understanding of the services delivered by other healthcare practitioners and social services professionals.

**Communication skills**

Communicating effectively with patients, their family members and with other healthcare practitioners, support staff, and other relevant third parties is an essential skill to ensure a Community Paramedicine project is effective. History taking and collaboration with a multi-disciplinary team requires effective verbal, non-verbal, listening and written communication skills to communicate clearly, precisely and appropriately with both patient and healthcare colleagues. The Community Paramedicine practitioner must demonstrate respect, cultural awareness, sensitivity andempathy when communicating. Healthcare is sometimes about compromise to ensure the most appropriate care plan is available. The Community Paramedicine practitioner therefore must demonstrate the ability to influence and negotiate to resolve conflicts and problems.

**Population health and health promotion**

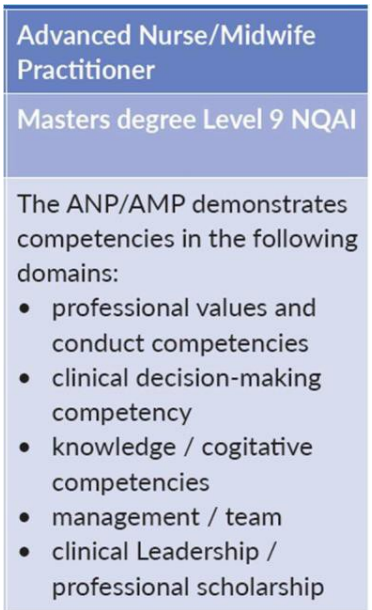
The Community should engage with and implement national health policies and guidelines. In doing so they should identify the need for, plan and implement new services according to patient's needs. An awareness of the public health resources available to patients and assists patients in availing of or contacting these services willenhance the community health profile.

By providing information, advice and education for patients and the public on health awareness, disease prevention and control, and healthy lifestyle and wellness, it will support national health policies. The Community Paramedicine practitioner therefore should identify opportunities for and engage in health promotion demonstrate support for these initiatives.

**Education**

To achieve the necessary competences the Community Paramedicine practitioner must have an education to enable analytical and autonomous practice which will provide care with safety and quality. In comparison with an Advanced Nurse Practitioner the domains of competences are the comparable with that required for a Community Paramedicine practitioner, see figure 1 [15]

Figure 1 ANP/AMP domains of competence and levels of education



The education must therefore be at level 9 of the National Qualifications Framework in a programme which encompasses a major clinical component. This postgraduate education will build on paramedic curricula to enable the Community Paramedicine practitioner to assimilate a wide range of knowledge and understanding which is applied to clinical practice.

**Recommendation 13:** Core competencies required of a Community Paramedicine practitioner include: autonomy in clinical practice, decision making, expert practice, professional and clinical leadership, research, teamwork, communication skills, population health & health promotion.

- To accomplish these the education to be set at level 9 on the National Qualifications Framework.

6.7 Continuous Professional Competency

Many health professions have statutory requirements to ensure competent practice (i.e. Medical Practitioners Act 2007). Community Paramedicine is a process of healthcare provision in Ireland and it behoves all to ensure competent practice and not wait for legislation to enforce it. Based on the experience of the Irish pilot Community Paramedicine programme it is suggested that protected time in a primary care practice, injury unit and respiratory specialist would be one appropriate approach to maintain practice.

## Appendix 1

**Qualitative review of the Community Paramedicine programme**

To inform this report a semi-structured interview was conducted by Brian Power with each of the four Community Paramedicine programme participants and the twogeneral practitioners (GPs) involved in the clinical placements of the programme to elicit their opinions on the programme, Community Paramedicine services and future developments. A thematic approach was utilised to combine the findings and to maintain participant confidentiality particularly with the low numbers involved. All the views within this appendix were expressed by the respondents involved and do not represent an opinion from this report.

In relation to the Glasgow Caledonian University programme each of the modules were reviewed individually.

**MMB724201 Advanced Assessment and Management of Minor Injuries (15 M Credits)**. Some found it a little disjointed initially bur overall expressions such as excellent and very good were used to describe this module. 'It is essential for the type of work in relation to keeping people at home'. The assessment skills were beneficial, particularly minor injuries. A criticism was that the anatomy and physiology was too detailed and also some clinical placements were too short.

**MMB724202 Advanced Clinical Assessment and Decision Making in Acute and Primary Care (15 M Credits)**. It was described as a very important module with a focus was on clinical decision making. It was an eye opener in relation to safe practice. Although it was a tough module it was very supportive of clinical practice. The module also reviewed long term illness and particular tying it into GP practice. Italso identified how chronic illness management was affected by distance from healthcare. When comparing the Scottish healthcare system with Ireland it was obvious that the only clinical care pathways in Ireland are GP or ED whereas there are multiple pathways available in Scotland.

**MMB722903 Supporting Anticipatory Care for Long Term Conditions (15 M Credits)**. The finding was that this module was very Scottish based, however it helped to focus on Sláintecare for the high-level objectives. It outlined a holistic approach to long term care. Anticipatory care planning was introduced which foundto be an extremely useful concept particularly in relation to reducing acute exacerbations. The major learning was that Ireland appears to have a reactive healthcare service where this module was encouraging proactivity in maintaining community health.

**MMB723442 Applied Pathophysiology for Advancing Professional Practice (15 M Credits)**. This module was found to be the most disappointing module in that it focused on only one illness where a broad generalist view of more of the chronic

diseases would have been more helpful. There was a good focus on pathophysiology, however. This module demonstrated that an essential entrycriterion for the Community Paramedicine programme is an experienced practitioner.

**MMB723191 Evaluating Evidence to Develop Research and Inform Practice - online (30 M Credits)**. Singular focus on research. Will encourage more pre-hospital practitioner involvement in research. Whereas both qualitative and quantitative research methods were covered when the student presented their research proposalthe emphasis changed to only one method. It was described as hard work but an enjoyable module.

**MMB722342 Masters Framework Dissertation (60 M Credits).** Two of the four students went on to complete the 3rd year and both have recently submitted theirMSc thesis. Once approved, they are happy to share the thesis with PHECC.

**Recommendations for future education**. Pathophysiology content to be expanded. Include more chronic conditions to make a more generalist approach. The advanced paramedic level was very beneficial as an entry criterion and should be strongly considered. A period of internship post training would support and encourage confidence and competence. Urinary catherization and urinalysis were not part of the course and were introduced as a local module which have been found to be most beneficial to practice. The commitment is significant and potential students should be made aware of the time commitment. There has been little exposure to suturing in practice and the feeling is that if any significant suturing is required it should be completed in a more controlled situation. Irish healthcare structures and in particular primary care structures would have been helpful. Palliative care and geriatric care modules should be included. Activities of Daly Living assessment which assists decision making in relation to remaining at home safety could also be added to the programme. An Irish Community Paramedicine curriculum should be developed. All expressed an interest in involvement in any future development of a Paramedicine Programme.

An exploration of the Community Paramedicine in practice was also completed.

**The most common presentations encountered**

The Community Paramedicine practitioner's initial response was the requirement forurinary catheterisation. One reported up to three catheters being inserted per day.Respiratory issues were very common, particularly COPD as were cardiovascular incidents. Incidents responded to from the AMPDS system were typically 'generally unwell'. Falls in the elderly, distal injuries also were encountered.

The GPs indicated that Falls, Elderly care and chronic illness were frequent encounters. UTIs and RTIs were also encountered.

**GP interaction**

The interaction between Community Paramedicine practitioners was described as excellent and very good. Availability on the phone and learning opportunities afforded were highly appreciated. There was an innate curiosity in learning about the programme and willingnessto ensure success.

The GPs also described the interaction as excellent and commented on the spirit of cooperation. Communication and trust are essential for it to work well.

**Most common medication utilised**

The Community Paramedicine practitioners expressed slight frustration in that they were limited to the advanced paramedic medications and did not have access to IV antibiotics, particularly for UTIs and RTIs. This could be resolved if they followed the HSE antimicrobial chart and the patient could be prescribed at least a starting dose, particularly out of hours. Hydrocortisone was high on all lists as the most common medication. Pain management was also frequently used. Buscopan and Pulmicort also figured in the care plans. The GPs perspective was that analgesia and nebulisers were commonly administered. IV fluids were usefully administered also. Antibiotics for UTIs and RTIswould have been very helpful if available.

**Benefit to the patients**

The Community Paramedicine practitioners used expressions such as huge and phenomenal to describe the patient benefits. 'The patients are so glad that you are keeping them out of hospital'. The appreciation has been demonstrated by the receipt of many thank you cards. Patients are ringing NEOC and requesting a named Community Paramedicine practitioner and not to send an ambulance.

The GPs describe the reduction of ED visits is the most positive result. No negative feedback has been received and outline that patients are happy to see the Community Paramedicine practitioners arriving. The cohort of patients are typically less mobile and home visits are very beneficial. When GPs make such home visits their equipment is limited and frequently have to send the patient to ED to obtain objective findings. Community Paramedicine practitioners have more extensive equipment and can make an objective clinical decision in the home setting.

**Deployment models**

The Community Paramedicine practitioners expressed that the model used by NAS isnot the best model. There appears to be a lack of understanding within NEOC of the role of Community Paramedicine practitioners. DFB are now requesting a Community Paramedicine practitioner response to low acuity calls also. This involvesthe practitioners being tasked to low priority calls only. Some SoB incidents are triaged as 'Charlie' and the Community Paramedicine practitioners are not considered, whereas they could address an exacerbation of COPD for these patients.A Community Paramedicine desk in NEOC would be helpful as the rotating of NEOC staff can result in lack of awareness of this service. An urban based Community Paramedicine practitioner serving low priority calls will mean rarely attending the same patient twice, due to the volume of incidents, thus not providing a primary care service is not in the spirit of Community Paramedicine practice. Some GPs are inclined to ring the Community Paramedicine practitioner directly, but this may lead to poor governance. GPs do not appear to have time to do house calls therefore the Community Paramedicine practitioners could be used to support the GP in this role. There needs to be a more structured scheduled visits with an aim to keeping people out of hospital. KPIs such as 'a reduction by one ED visit per annum' would be beneficial target for deployment of Community Paramedicine practitioners. One way of achieving this development is through anticipatory care processes for patients

with chronic diseases. Post discharge follow-up visits would be proactive and should be encouraged. Also, follow-up calls with frequent callers may help to reduce this issue.

The GPs are comfortable with the Community Paramedicine practitioners ringing them directly or vice versa. A Community Paramedicine desk in NEOC would be helpful. A Community Paramedicine practice area would be helpful as it would help to build relationships with GPs and patients.

**Geographical area**

The Community Paramedicine practitioners were suggesting a two hour or 40 km, from last incident, response and some indicated it may be more efficient if based in atown due to population density. The GPs on the other hand were focused on population size and GP practices. It wasemphasised that building relationships within a geographical area is very important for the successful implementation of Community Paramedicine project.

**Uniform design**

This question was posed as a result of a Canadian decision to utilise different uniforms for Community Paramedics to distinguish between the emergency care and primary care services. The Community Paramedicine practitioners felt that it was better not to use the high-vis jacket when doing house calls. Some had very strong views on this subject.'*Would like the high-vis out of the equation completely'*. Utilising the same uniform as the emergency ambulance colleagues sometimes gives the impression that an ambulance has arrived at the house causing confusion. Requests have been submitted to NAS for a navy or black shell jacket which it was felt would be more suitable. Comparisons were made with Ambulance Officers in dress uniform responding to calls without any issues.

The GPs had a different impression in that patients are not put off by the uniform but when pressed concluded that a step down to a low-vis may be good.

**Vehicle type/ design**

The Community Paramedicine practitioners were in unison that the current RRV type vehicle was necessary as they are also dispatched to emergency incidents such as cardiac arrest. If the Community Paramedicine service model was strictly non- emergency, then they would support a decal with less visibility. The patient sometimes expresses a consciousness of neighbours being aware of the ambulance service presence outside the home. Several issues were identified with the vehicle type, however. The preference was to change to a small van type vehicle with shelving rather than a saloon car with response bags. A move to a white vehicle may also differentiate it from an emergency response. GPs suggested that 'CommunityParamedic' could be clearly displayed on the vehicle.

**Advice for future developments**

The Community Paramedicine practitioners sought clarity in relation to out-of-hours GP services ringing for an ambulance transport to ED and a Community Paramedicine practitioner being dispatched and deciding, following assessment and care, that ED was not required. This scenario could lead to conflict. The current narrow focus to reduce ambulance transport to ED is not an effective use of a Community Paramedicine practitioner. A big opportunity may be missed if the Community Paramedicine programme is not used to benefit the greater community through Sláintecare initiatives. More emphasis on managing respiratory and cardiovascular issues and less on musculoskeletal injuries. Practitioner prescribing, particularly for antibiotics for UTIs an RTI would be very beneficial.

Deployment model needs to be agreed. The title Community Paramedic is sometimes confused with Community First Responders by the patients, therefore, consideration should be given to an appropriate title. A catchment area of a specific non-emergency number of patients for scheduled follow up and urgent response is more desirable model than as a back up to the emergency service through response and call reduction. Autonomous practice is the goal and NAS managers must understand this progression. The selection criteria must include experienced practitioners. The focus must be on holistic care and employment opportunities must be available in other healthcare settings other than just NAS. Community Paramedicine is the way forward through improved patient care and financial savings across the healthcare budget. Covid-19 has highlighted the patient's desire not to go to hospital.

The GPs would like to see more in dispensing particularly of IV antibiotics for UTI or RTI, commencing the course and a follow up visit. Palliative care interventions would be helpful. Support for 30-day re-admission rate reduction was very strong with planned visits. Identify high risk patients at discharge and a combined visit with Public Health Nurse is recommended.

Community Paramedicine is an idea of its time particularly that patients do not want to go to hospital. Relationships with all in primary care is paramount. The Community Paramedicine practitioner must be a de-facto member of the primary care team. GPs can be suspicious that more work may land onto them through its introduction, however, other work has been clearly removed. Health improvement is the goal and not all about hospital avoidance. Frequent callers initiative is supported, however, it must be in conjunction of a plan of care. Community paramedicine should be regarded as a sub specialisation with autonomous practice. Governance was seen as an issue as PHECC is firmly rooted in the emergency world. Must consider ICGP involvement and not only Emergency Medicine. GPs are too busy to do home visits and this gap needs to be filled. Community Paramedicine is ideally placed to fill this gap. Health promotion is another area where Community Paramedicine practitioners could be usefully deployed.

A follow up e-mail was received from one of the GPs making additional observations and recommendations for future developments.

> *"I should have mentioned some other things I think are important for the development of Community Paramedicine. The practical skills of suturing, catheterisation are very important. I feel the development of an extended prescribing should be considered. Presently the inability to prescribe certain meds orally such as steroid and some antibiotics. The London Ambulance Service have given this privilege to their Community Paramedics. The Community Paramedic having the ability to refer to other disciplinesin the Primary Care Team here has been important and very useful. Finally, as a choice for career development, Community Paramedicine should be equal in stature to Advance Paramedics,Critical Care Paramedics. Whether Community Paramedics should be advanced Paramedicswith a certain number of years' service is something which might be considered. It is my belief that the decision to treat and discharge is one of the weightiest decisions that any Community Paramedic can make.,something perhaps APs and Critical Care Paramedics will not be asked in the main to do." Dr Seamus Clarke.*

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