THE WINSTON CHURCHILL MEMORIAL TRUST OF AUSTRALIA.

Expanding Ambulance Care for the Elderly

An investigation into models of Extended Care Paramedic Programs in Canada and the United Kingdom.

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2007 Churchill Fellow

Research May to August 2008

“With opportunity comes responsibility”

Winston Churchill

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Executive Summary

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Project Description: Expanding Ambulance Care for the Elderly:

An investigation into models of Extended Care Paramedics treating the elderly in Canada and the United Kingdom

Aged care is a growth industry. Overseas models of non traditional health care deliveries by Paramedics, have proven through research to be economically and socially accepted as a real value option in meeting the primary health concerns of communities.

The model of community Paramedicine that I was able to observe in Nova Scotia (Canada) is a wonderful example of what occurs when there is a need and a community willingness to accept a new model. This model has proven to reduce hospital admissions by over 23%. [1,2]

With the pressures on the National Health Service (NHS) in the United Kingdom, new models of care were developed. The Ambulance Services were receiving a large number of 999 calls that were for minor conditions, resulting in a significant increase in workload. Many (calls) were patients who would benefit from treatment and discharge at the scene, compared with transport to busy Accident & Emergency (A&E) Departments.

In Sheffield a pilot program in treatment and discharge of elderly patients who presented to the Ambulance Service via 999 calls with minor conditions, has been well documented with several research papers written about the success of the work undertaken. The Paramedics of this program now work in a wider system called Extended Care Practitioner. Their work is still very much care for the elderly with minor conditions, despite the program widening its charter.

Despite the education levels of Paramedics in Canada and UK varying, each team have adequate training to cater to, and fulfil, their own communities' specific needs.

Australian Ambulance Services in particular Canberra would benefit from such a program. Much research has been undertaken into these styles of health care delivery. In Cities such as Warwick and Sheffield that have similar demographics to Canberra, sound analogies can be drawn from published literature, and my Churchill Fellowship findings.

It is my intention to disseminate my findings to my peers through an article in our national journal *Response Magazine*, and to submit a presentation to the Annual Prehospital National Conference on the topic *"Expanding care for the elderly, a Churchill fellowship perspective".* I will also be present my findings to prospective patients, when I visit the Senior Citizens Clubs of Canberra.

In the National Health and Hospital Reform Commission's (NHHRC) terms of reference are issues relating to *"aged care".* Both the Federal and ACT Governments have acknowledged that there needs to be a change to the way we address aged care in Australia. In the ACT Health Department's submission to the NHHRC this concern is spelt out, "*Despite the relatively low population growth in the ACT (approx 0.8% per annum), the number of aged persons over 65 years (who are major consumers of health services) is expected to grow by 59% over the next decade compared to 37% nationally…….Service strategies will need to take account of changes in population"*.

With both Governments ready to embrace changes to the health care system, now is an ideal time for models of expanded care for the elderly, by Paramedics such as those I have witnessed overseas, to be implemented in Australia.

Acknowledgments

I would like to thank the many people and organisations that helped me to undertake the Churchill Fellowship study tour in 2008.

I wish to thank:
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My Referees:
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The Organisations that I visited:
Emergency Health Services: Nova Scotia, Canada.
London Ambulance Service: London, United Kingdom.
University of Hertfordshire: Hatfield, United Kingdom.
University of Sheffield: Sheffield United Kingdom.
University of Coventry: Coventry, United Kingdom.
Yorkshire Ambulance Trust: Sheffield, United Kingdom.
Coventry & Warwickshire Ambulance Trust: Warwick, United Kingdom.
The dedicated professional staff that I had the pleasure of working alongside and interviewed.
Nova Scotia Canada
Mr Michael J. McKeage, Vice-President, Clinical Operations
Mr Tony J. Eden, Director, Ground Ambulance Services
Dr Andrew H. Travers, Provincial Medical Director
Mr Saleema Karim, Research Statistical Officer
Mr Mark Walker, Clinical Learning Coordinator
Mr Tom Dobson, Clinical Quality Coordinator
Mr J. Albert Walker, Clinical Educator Coordinator
Mr Doug Brown, Clinical Learning Coordinator
Mr Phil Stewart, Supervisor, Operations
Digby, Long and Brier Islands
Mr Tim Bayers, Regional Manager, Western Region.
Mr Greg MacKinnon, Regional Manager.
Mr Mike Lockett, Senior Operations Paramedic
Ms Amanda Renaud, Paramedic in Community Paramedicine
Ms Dara Lee MacDonald, Primary Health Care Nurse Practitioner.
United Kingdom
The Staff of Camden Ambulance Station.
Dr Julia Williams, Principal Lecture, University of Hertfordshire.
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Dr Sue Mason, School of Health Research Sheffield University.
Julie Perin, Nurse Practitioner, Sheffield.
Rob Gorringe, Lead ECP, Sheffield, Yorkshire Ambulance Service.
Dr James Gray, Yorkshire Ambulance Trust.
Mick Fieldhouse, ECP Warwick Ambulance Trust.
The many wonderful ECP's, from Warwick and Sheffield Ambulance Trusts, that I had the opportunity to work along side.

Time table, project itinerary
CHURCHILL FELLOWSHIP ITINERARY (12th MAY – 3rd AUGUST 2008)
Canada 12th May – 25th May
Halifax Nova Scotia Canada
Long & Brier Islands Nova Scotia Canada.
United Kingdom 26th May– 3rd August
London UK, Hatfield UK, Sheffield UK, Coventry UK, Warwick UK, Harrogate UK,

Introduction

With the whole of the world living longer and demands on health care at a premium, there is a need to ensure that our elderly citizens are catered for fairly and respectfully in health care.

Overseas models of expanded treatment and care for the aged in their homes delivered by Paramedics have had a significant benefit in improved patient outcomes, and have become a real cost effective and very efficient form of health care.

In the UK changes to the National Health Service (NHS), meant there was a lack of professional care at Doctor level that resulted in patients with minor and acute presentation of chronic conditions needing to present to busy Accident and Emergency departments for treatment. A new model of care provided by Ambulance Paramedics extending their care was developed with great success.

These demands on health care are also occurring right here in Australia. We are an ageing population. Within the next 10 to 15 yrs we can expect a four fold increase in people over the age of 65. Currently the over 65 year age group accounts for 32% of the workload that the ACT Ambulance Service attends.[3]

The process that the patient experiences today is in it's self a stressful event, being assessed at home, transported to a busy hospital to have to then wait around on trolleys for hours with a minor presentation requiring treatment, then a transport back home. This can commonly take 8 to 12 hrs. For anyone this is a stressful and unenjoyable event, but especially older patients who have the added feelings that they are just wasting everybody's time.

This is the type of scenario that I wished to study: to see how this is dealt with overseas, to explore how the patients and their carers feel about being treated in the home, to see how the whole system is viewed by the rest of the medical profession.

Ambulance Services' roles are traditionally thought of as fast, flashy and full of adrenaline type work performed by staff when they respond to a case.

I will explore why the Ambulance Services have decided to expand into treatment of older patients in their homes.

"With opportunity comes responsibility"

I have had the Opportunity to explore systems of expanding care for the elderly in Nova Scotia Canada and in Warwick and Sheffield in the United Kingdom.

Canadian experience

To understand why the Province of Nova Scotia in Canada came to set up a community paramedicine program, you need to examine the background of the Ambulance industry in Canada.

The Canadian Ambulance systems have, over the years, followed the American system, which is one of private providers.

Only a little over 10 years ago, the Province of Nova Scotia had many different providers of Ambulance Services with different standards of care.

Long and Brier Islands (two small islands) off the Digby neck, (see maps in appendix 1) had limited Ambulance Services in the form of the local funeral home providing an Ambulance Service, obviously with limited care in comparison to other busier areas of Canada.

The Islands' health care system consisted of a Doctor, and a funeral home based Ambulance that transported patients to hospital, (I speculate with very little more than first aid type of care). It is a 1 hour drive to a small local hospital and 2 hours to a regional district hospital.

The government, in it's quest for better prehospital care, contracted a single company to provide ambulance services for the whole of Nova Scotia. With the signing of the contract to Emergency Health Services (EHS) came the changes to make a service (within 10 yrs) a truly world first prehospital emergency care provider.

Today they operate with modern research based practices, excellent equipment, solid systems and a professional staff with a true commitment to excellence in patient care.

With the contracting of Ambulance Services to a single operator, the citizens of Long and Brier Islands no longer had their funeral service based ambulance on the Islands, an emergency care ambulance would respond from Digby (some 20 minutes away).

The community of the Islands was left with the impression of being left out with the loss of an ambulance. Then when the one and only local Doctor decided to retire, they (the community) were sure that they would be forgotten and not receive any quality primary health care.
The Government of the day was very aware that they would never be able to get another Doctor to relocate to a very quite area of the province. The Health Minister had assured the community that they would have primary health care, and promptly informed the Ambulance provider EHS to provide a 24hr Ambulance Service to the communities of Long and Brier Islands. EHS were very aware that providing the service in emergency ambulance would not be enough for this ageing community, and so was born the system of community Paramedicine.

Long and Brier Islands were once a thriving fishing area. The population (1250) consists of mostly the aged (over 65yrs) and the elderly-elderly (over 85yrs). The community has very few younger people. The Islands have also attracted retirees from Boston USA, who have chosen the quiet life, but in doing so have added to an ageing population. Most of the community doesn't have extended family living on the Islands, due to the need for the young to move to find employment.

When EHS Ambulance Service was handed the task of providing health care to the community of Long and Brier Islands they held community meetings to discuss with the citizens, what they were able to offer.
It was conveyed at these meetings that the community felt they where being treated as second class and they wanted to have a Doctor. Nobody likes change. It is without a doubt the professionalism and commitment of the staff of EHS who have made this service a success.
Originally the community were reserved and believed that they were given a substandard health care system.

The EHS Ambulance Service also has access to a Nurse Practitioner who works in unison with the Paramedic Practitioners, from a clinic on Long island (the bigger of the two).

The Nurse Practitioner visits and operates clinic sessions approximately 3 days a week, with patients travelling to the clinic for appointments.
The Community Paramedic Practitioner and the Nurse Practitioner work together in a slightly different way to other places in the world.
Here the Nurse Practitioner refers patients ongoing care back to the Paramedics (who are on the Island 24hrs), as they have more time and contact with the patients. This is a reverse of models else where in the world, but it works fine on Long and Brier Islands.
An example is, the “Planned Work load for one day”. The Nurse Practitioner has asked the Community Paramedic Practitioner to do two blood draws from different patients, and to do three dressing changes. This is work that would traditionally be done by a “District Nurse”.
Because the Community Paramedic Practitioners work in shifts, (a different Paramedic each day), they carry a digital camera and print copies of wounds they are caring for. This works well as the pictures are used to gauge the care and condition of the wound, in consultation with the Nurse Practitioner.

The program was functional by June of the year it started, the public wanted a Doctor, but settled for an alternative health care system, initially believing that they were getting a second rate compromise.
By the Thanksgiving of that year (December), the crew on duty were presented with three Thanksgiving lunches by different community members, (3 lunches with all the trimmings!), a sign of community acceptance. The community know they have a great system, with the statistics showing the Community Paramedicine program has achieved a 23% reduction in hospital admissions from the Islands, this figure has remained constant.[1,2]
I had the opportunity to meet and speak with local residents. The ferry driver (a local resident) was able to confirm that since the Community Paramedicine program was introduced it has reduced his work of ferrying the ambulance off the Islands significantly *“I would be taking the ambulance off almost everyday sometimes 2 or 3 trips, but I hardly see it, maybe once a week.”*
The community are settled and comfortable with the system, and wouldn’t want to go back to the way of the past. I have the impression that they would fight to keep what they have.

A unique part of the Community Paramedicine program on Long & Brier Islands, is the “Adopt a patient program”. Many of the patients are not just the elderly but are in fact in the elderly-elderly (85+) age group.

Extended families if present are most likely to be elderly (65+) themselves.
In the, “adopt a patient program”, “Orphan” patients are “adopted” by a Community Paramedic Practitioner.
This doesn’t mean they take them home with them, but they keep a caring watchful eye over the person as would a younger family member.
Patients who are enrolled are logged in a book on the station and should another Community Paramedic Practitioner attend that patient, their visit is logged so that the adopter can keep a track of their adopted patient.
When the Community Paramedic Practitioner is on duty at the Islands they will visit their “adopted elder”, and keep that watchful eye.
It has been a very successful part of the program as it has created that community spirit and “peace of mind” for the patients and other members of the community.

Health Services in Nova Scotia are very aware that the Community Paramedic Practitioners have been successful in decreasing admissions and prevent readmission to hospital through simple, but very effective preventive care, such as the checking and reassessing of wounds, (this has stopped infections developing) and the giving of early antibiotics, plus prevention of cellulitis. Well documented is the post discharge care of patients with Chronic Heart Failure (CHF) and their decrease of readmission. Community Paramedic Practitioners have also been able to prevent complications arising in patients post day surgery, and also have allowed for the early discharge of patients from hospital, as they (the Paramedics) are someone who can continue post discharge care of the patient in the community, this has been a tremendous “peace of mind” for the patients.

I had an interview with Mr Tony Eden; *Director of Ground Ambulance Services for the Department of Health.*
In our conversations Tony was telling me that EHS is the face of health care in the rural areas of the Province of Nova Scotia and another community (Lockport) is aware of the Community Paramedicine system provided to Long & Brier Islands. The community of Lockport is calling out for this system to be introduced to them. This has raised the thought that are there even more areas that want this, but are not aware of the Community Paramedicine program?
The Paramedics who enrol into the Community Paramedicine program currently operate on a “rotate roster”.

This works well as it is a win win situation, the area is too quiet in prehospital care, for staff to work there full time, they only average one emergency job every three days.

They have developed a work roster of 24hr shifts on the Islands and then the Paramedic will undertake a shift in a busier area (Halifax or Digby) to keep up their emergency care skills, before returning to the Island for another shift. This has made staff willing to enrol into the Community Paramedicine program, as it is quiet and relaxing and rewarding work, when you are rostered to the islands.

In order to capture all of the work performed by the Community Paramedics, a 1800 phone number has been established for the residents to call, and a case is assigned. Even if the crew are attending to a minor treatment ie; a dressing change they are dispatched as a routine case, enabling very accurate records of cases undertaken, this method has allowed for very accurate statistical recording.

The Community Paramedicine program offered for care on the Islands of Long and Brier is not a complicated list of skills that would have taken years for staff to master, but a well thought out extension of care that will enable most patients to be cared for in their home. The good thing about this program is that the list was developed out of research (of the community and their reoccurring illnesses), consultation with other Health Professionals, particularly Nurse Practitioners (who have become the educators) and with the citizens of Long and Brier Islands. The way they have gone about setting up the system allows for versatility to expand the treatment options, on a as needs basis for other illness treatments or prevention assessment. This is in fact how the original skill set was rolled out.

The skill set is taught by Nurse Practitioners and was born out of necessity. The initial training is a one day introduction to the clinical settings of a hospital and then 24-30 hours, based on competency levels, is spent in settings such as wound care clinics to gain skills.

I spoke with Paramedics who work in the Community Paramedicine program, staff are happy with the program and no one could really determine if any thing was missing that would be useful for their community. The type of staff that have undertaken this program do not represent any particular group of the workforce. Appendix 2 is a chart of the extension of care that is practised by the Community Paramedics Practitioners.

On reflection of my time in Nova Scotia, I found this to be a truly wonderful and valuable addition to the health care system for this Province. The Statistics prove the economic value of the system, (>23% reduction in hospital admissions).[1,2] The community want and care passionately for their unique health care system and with other communities deeply interested in obtaining such a system for themselves, is a testimony to the acceptance and success of the Community Paramedicine program.

I like that in the development of the Community Paramedicine program there was community involvement through consultation. The program is dynamic enough to move and introduce skills and treatment regimes to meet the community's needs as other medical conditions arise.

United Kingdom experience

In 2000 the United Kingdom (UK), Department of Health document titled “Reforming emergency care”, stated that “*new initiatives need to be developed to improve the care and assessment of patients”*

A group of like minded individuals set about establishing a pilot Paramedic Practitioner (PPP) program for the elderly. This program was to evaluate the ability of Paramedics to treat and leave elderly patients with minor conditions in their homes.

The research committee, in particular Dr Sue Mason a researcher from Sheffield University School of Medical Research and an Emergency Department Physician, was aware of the constant “revolve a door” presentation of treat and discharge of elderly patients at the Accident and Emergency Department, “….21% of visits to the emergency department are by older people….and are more likely to arrive by ambulance…..and more likely to be admitted to hospital once there”, often presenting with minor conditions.

The elderly make up the highest group in hospital who are unnecessarily admitted.

The PPP program began with a group of seven Paramedics, who were selected, and educated to increase their scope of practice with relation to prehospital care for the elderly.

The education program that the Paramedics were trained in is outlined in appendix 3.

The program was developed and began with an aim of treatment and not transporting the elderly patients presenting to the Ambulance Service (via 999 calls) with a wide range of conditions. The Paramedic Practitioners and this pilot program of care in Sheffield have been well researched. A lot of research papers can be found about this project, such as *“Developing a community paramedic practitioner intermediate care support scheme for older people with minor conditions”, and “Effectiveness of paramedic practitioners in attending 999 calls from elderly people in the community: cluster randomised controlled trial”* have contributed to justification in the expansion of care to the elderly.

The research undertaken from the Sheffield pilot program has also contributed towards the instigation of the Emergency Care Practitioner (ECP) a role through out the UK. The original seven Paramedics who were doing the pilot program were enrolled into the current Emergency Care Practitioner (ECP) scheme.

The ECP's today are an integral part of the healthcare system in the UK, and are not just restricted to treating the elderly. However the elderly patient makes up the majority of the work of an ECP. The skill set of the ECP's is tailored to aged care with the expansion of skills from the original Sheffield based PPP to include the ability to treat urinary tract infections (UTI's), constipation and expansion in minor wound care techniques, as these are areas of health care that effect the elderly more than any other group.
During my time observing the ECP's in the UK, I saw first hand that the over 65yr age group represented over 90% of the ECP work load.
My UK experiences were based on observing the Ambulance Service ECP systems, in Sheffield, London and Warwick, and speaking with staff about the ECP systems in Hull and Wales.

The different Ambulance Services in the UK utilise their ECP's slightly differently. The London Ambulance Service will not be used to draw any conclusions in relation to this report. This is because London is like no place in Australia, the population (2/3rd's of Australia) and the large number of hospitals, within very short distances (10 minutes from anywhere) through out the City is not like anywhere in Australia. It's an amazingly busy Ambulance Service, but no valuable comparison data can be drawn.
The cities of Sheffield and Coventry/Warwick are mid sized cities and compare well to Canberra. Sheffield, where I spent the most of my time with the ECP's, is very good to compare to Canberra, as both have one major trauma centre hospital and both have a secondary hospital which offers an Accident and Emergency Department that has limitations on the patients it can take. The population bases are simular with Sheffield near 480,000 and Canberra at 340,000.

The Midlands Ambulance Service, which covers Warwick, employ their ECP system as if they were any other emergency crew. The ECP is not kept solely for ECP cases and can be sent to any Ambulance case, such as a motor vehicle accidents, assaults etc.
The problem that I have seen with this system is that an ECP may not be available when an ECP type case is called in, resulting in either a delay in response or an unnecessary transport to hospital for the patient, who may have been able to be treated and "discharged" at home.

The ECP can get responded to ECP specific cases, when they are identified by Ambulance Communications as such a case, or by referral from another Ambulance Crew who have first attended. This is as long as the ECP is free to respond.

The Yorkshire Ambulance Service, which covers Sheffield, has a different system of utilising it's ECP's.
In the initial stages of the PPP program for the elderly (the for-runner to the ECP), they (Sheffield) had the Ambulance Communications Officers dispatch them (PPP) onto cases. This proved not to be a success, as the communication dispatch systems in place in the UK is geared for time related dispatches, with an emphasis on quickness to responses, and little information obtained, to determine if the case would benefit from treatment and no transport. This initial method resulted in an under utilisation of the Service.
The Yorkshire Ambulance Service, recognising the deficiencies in the dispatch system, developed a system that has an ECP working in the Ambulance Communications centre, at the "ECP desk".
The role of the ECP at the "ECP desk" is to scan all the cases that are entered into the system (via 999 calls), for ECP type cases, then over ride and assign these to an ECP. This works well as the other Communication Officers can continue to do the job of time related dispatches the system is geared towards with out delays. The ECP at the "ECP desk" is also there as an advice service for other Ambulance Crews on cases that they (the crew) feel may benefit from an ECP attendance. High users of the ECP service such as nursing homes and District Nursing are encouraged to call the ECP desk directly for services. The staff on the "ECP desk" enter data about the cases attend by ECP's, into a data base after the case has been completed. It is this data that has been so beneficial for research about the system to be written. This data also allows for records on the treatment, the skills used and decision making processes of individual ECP's to be recorded, and is the basis of a Quality Assurance system on ECP care.

It was necessary to experience "out of hours" (after 5pm, weekends and public holidays) shifts with the ECP's, as this is when the majority of the work load for the ECP's occurs. In Sheffield they have developed a model of "demand rotas" for shifts for the ECP's. They operate from 0700am with shifts through till 0200am. The research has shown that ECP work is in two peak periods, the first at 700am till 1100am and then a second wave from 1700 till 2300.

I was able to see a wide variety of the typical case load of an ECP, while the ECP system in the UK is for any patient; it is the elderly who make up the majority of the cases that they attend. Cases that I was able to see assessed and treated included: falls patients and fall assessment which included a thorough limb and joint examination, Patients presenting with respiratory problems including chest infections, abdominal discomforts, lacerations requiring wound care, UTI's, and constipation, cardiac related chest pain.

I was interested to see what the elderly patients felt of a non traditional form of health care. In Canada the community loved their uniqueness, but what about the British, with their long established traditions of medical care based on a Patriachal society, would anything but a Doctor be accepted?

I was surprised to find an overwhelming acceptance of this non traditional form of health care, particularly from the elderly patients. They appear to not be concerned with not having a Doctor treating them, and were very appreciative of the ECP and the alternative health care professional.

The gentleman in Case 2 (pictorial on page 19) was very distressed with the idea of having to go to hospital for an annoying injury. His stress and annoyance subsided when the ECP informed him that this injury was able to be treated at home. It was due to the apparent ease and no difference in level of care to that which he would receive in hospital without all the mucking about, that he was grateful for.

I found the carers also very appreciative of the system and the level of care provided. One patient's daughter wrote to me to explain how she felt about the health care system in the UK.

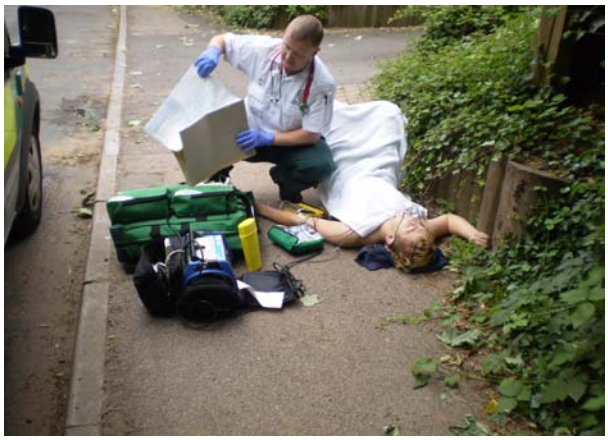
" I was so impressed by how the network of support and knowledgeable advice worked and how well everyone responded as a team. The aim was not to send her into hospital unnecessarily. The paramedic who came ……..was quickly able to assess mum's condition and administer appropriate treatment and drugs to improve her condition. Although mum did respond to the treatment it was suggested a check was made later in the day. Unfortunately she had deteriorated at the next visit four hours later so was then admitted to hospital. I was very impressed by the confident and competent way the paramedics were able to assess my mum's condition and know what treatment was required. It was also useful that drugs could be administered immediately as usually a prescription is given and the drugs have to be fetched from a local pharmacy. In conclusion I feel this way of team working is very effective in treating people efficiently in their own home and therefore avoiding a stressful visit to hospital".

The full email can be seen in attachment appendix 4

Picture Chronicle of some of the type of cases attended by an ECP.

Case 1

In Warwick the ECP is used for all work encounted by the Ambulance Service, This can result in being unavailable to attend a specific ECP case, when on another case.



Here the ECP attends to a 19yr male sudden onset of abdominal pains.
The patient is assessed; treatment including pain relief is begun.

Another ambulance is sent to take over care and transport patient to hospital.

Case 2

Here we are attending to a 72yr Male fallen over at home.

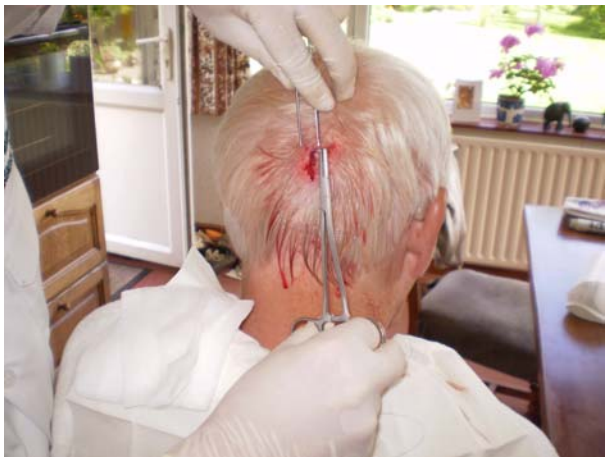
The Patient was seen by an emergency Ambulance Crew, who have referred the case onto the ECP, for assessment and treatment

The patient's injury was initially thought to be able to be glued back together (by the initial crew), but with a thorough assessment of this wound, revealed it required Sutures.

As the patient can be treated at home (sutures) this avoids an admission to an A&E Dept.

The Patient an elderly gentleman was very happy to receive care at Home, as he doesn't care for all the "mucking around and time it takes" with a hospital visit.

Case 2 continued

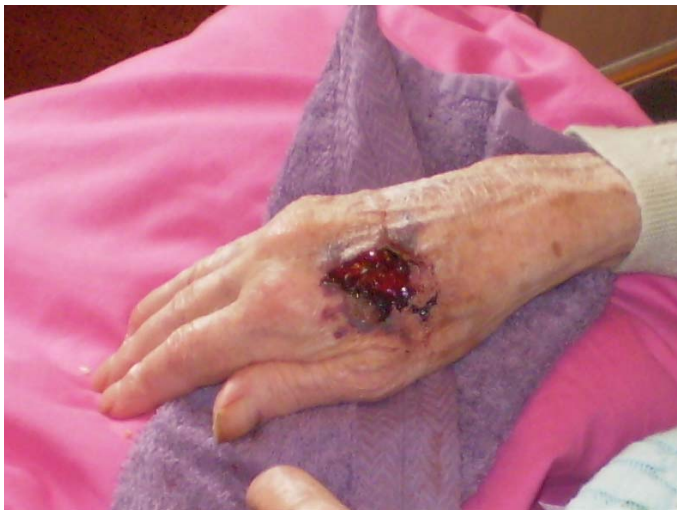


Treatment of the wound is only part of the ECP role.

Good documentation, and referral (in this case back to his GP) plus assessment of patient for causes for a fall, are all part of the case.

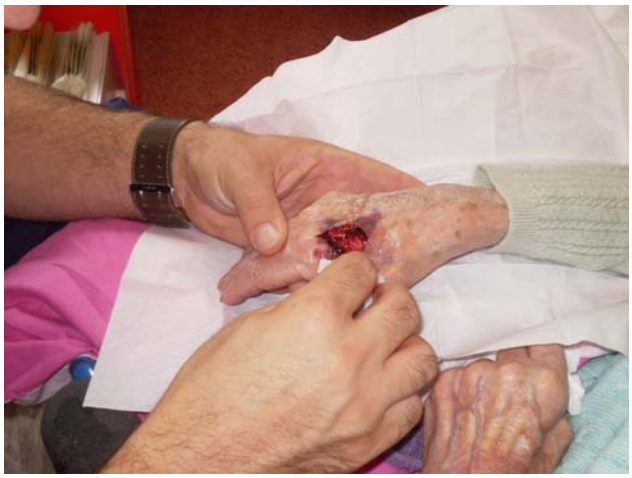
Case 3

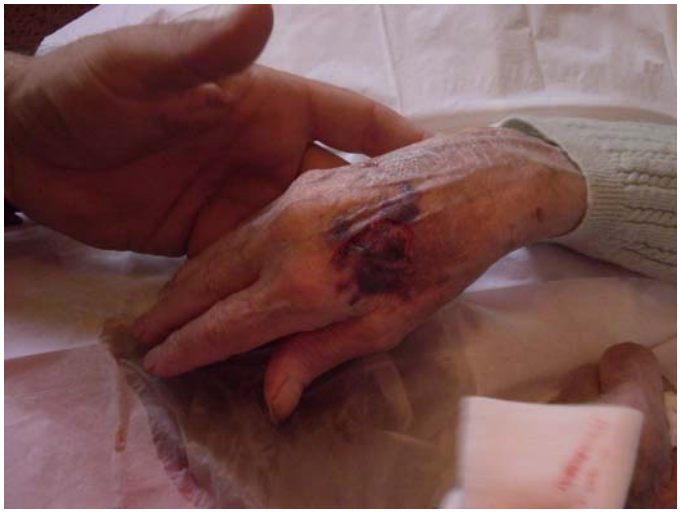
Nasty looking skin tear



Minor wound care is a daily skilled used by the ECP's, dealing with the aged as it is unlikely that the elderly will fall and not receive a minor wound (at least) as a result.

The ECP undertakes basic wound care



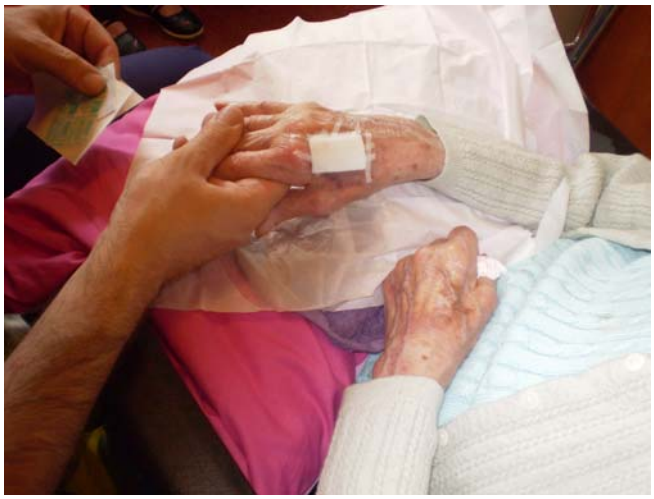


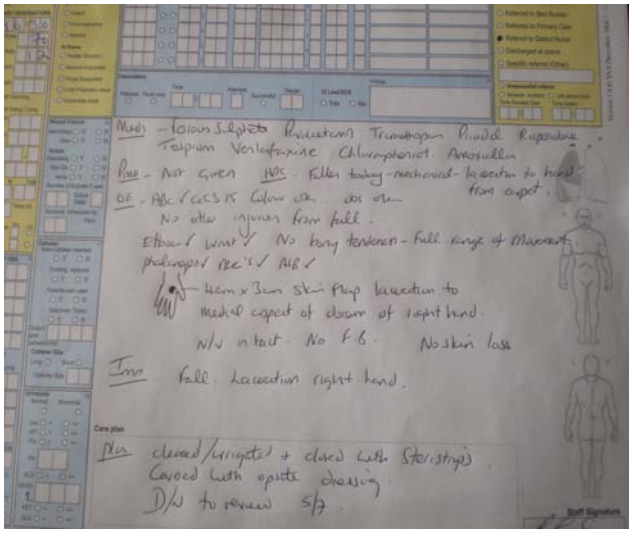
Not bad work !!

Case 3 continued

Steri strips

And a dressing





And paper work,

This patient has been referred on to District Nursing for the ongoing care of the skin tear.

Case 4

A call from a District Nurse, who needs assistance with a patient who is unwell, and has a history of chronic airways limitation (CAL)

Refreshing to see the mutual respect exists between the District Nurses and the ECP's with both understanding each others professions

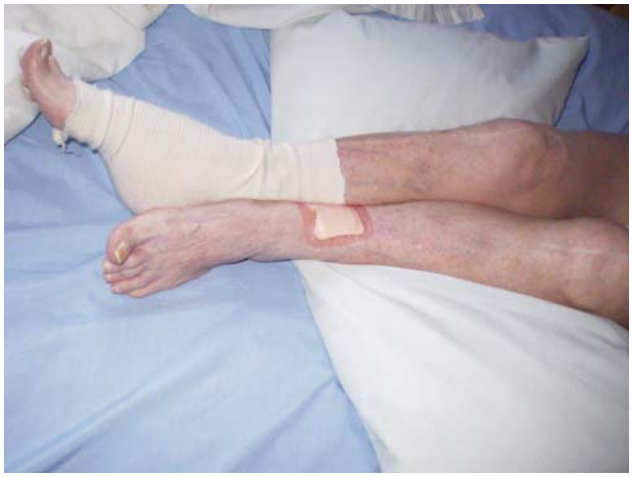
Not only was the District nurse grateful, the patient and carer are also delighted with the ECP model of health care provided.

This patient presented with exacerbation of her CAL, District Nurse was unable to treat as they do not have medications and oxygen This patient was typical of many elderly patients, not wanting to be sent to hospital. Patients assessment today's diagnosis a chest infection and most likely pneumonia. Patient refused to be sent to hospital, an action plan was plotted out with all in agreement, this consisted of now antibiotics, prednisolone, nebs of Ventolin and Atrovent, and a referral to another ECP to come back at 9.00pm(in 4.5 hrs), to reassess, if no improvement then hospital would be the option.
Follow-up revealed that the patient was admitted to hospital after the 9.00pm appointment with the ECP,

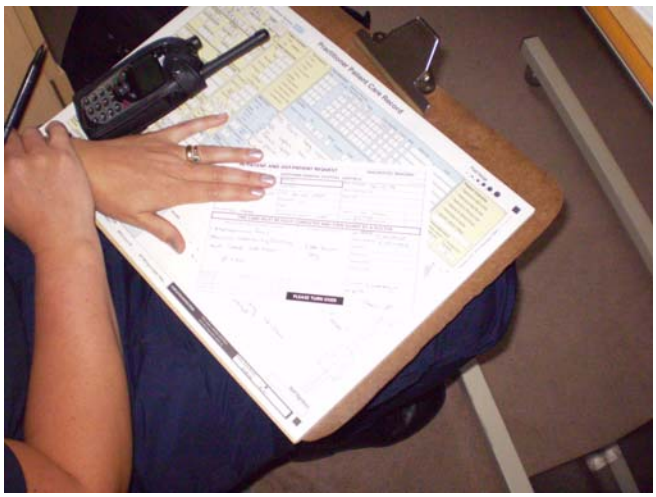
Case 5

Despatched to a routine case of an elderly patient in a nursing home with a leg injury?

O/A patients leg, (no skin tears as anticipated) patient has an obvious fracture tibia (lower leg bone).



The ECP's role when presented with such an injury is to organise transport for the patient to hospital and enter "referral pathways"



Instead of the patient presenting to A&E Dept, only to go through another assessment to be then sent for an X-ray.
The ECP has the authority to request an X- ray and then refer the patent onto the fracture Clinic, who will arrange admission of patient to the orthopaedic ward. This saves the elderly patient hours of frustration and waiting about the hospital on a trolley.
The patient was given pain relief and made comfortable, and left in care in her bed until a transport ambulance arrived.

Education experiences

In order to fully understand the expanding care for the elderly programs I considered it necessary to look at the education of the Paramedics. This included both the prerequisites for entering the programs and the curricula of the various programs.
In Australia each State and Territory is responsible for the training of its Ambulance Paramedics. This varies from vocational training through to University Degrees. Then to become an Intensive Care Paramedic (ICP) requires further training again ranging from vocational to post graduate certificate. Classification as an ICP in one state or territory will not necessarily lead to the same classification in another. There is no professional registration of Paramedics in Australia.
The introduction of professional registration in Canada and the UK has led to standardisation of education within each of these jurisdictions.

Registered Paramedics who are employed to work in the region of the Province where Long and Brier Islands are located can enter the Community Paramedicine Program. The course is conducted by Nurse Practitioners and it is an “in house” course that educates staff in the skills that are needed to perform the role as a community Paramedic. As per the standards that have been established. This practical course delivers the knowledge and skills that are essential for the Community Paramedic Practitioner to care for the elderly community, of Long and Brier Islands.

The original Pilot program was a research project developed to determine how to best meet the needs of the elderly community of Sheffield. In the initial concept they started training Paramedics to Nurse Practitioner level within a defined skill range (appendix 3). This has proven to be the skill level needed within the ECP program.
I spoke with Dr Sue Mason of *Sheffield University* and Julie Perin a *Nurse Practitioner* with *Sheffield Hallam University*, both of whom were involved in the education of the pilot program, and involved in the education of ECP’s today. They felt that what was delivered was right for the skills that needed to be performed.
I also spoke with Robert Gorringe *Emergency Care Practitioner Team Leader for Yorkshire Ambulance Service,* who was one of the original seven in the pilot Practitioner program. Rob also felt that what was delivered in the training was adequate for the job that they had to perform.

I was impressed with both the Canadian and the Sheffield models, both of these programs have been designed to meet a void in primary health care required for their community, and were job specific in the training that was applied.

My focus is on aged care in Australia and what further education is needed by an Australian ICP, to perform this level of care. I needed to understand what the base Paramedic education is overseas, so that I can understand what they have needed to build on to allow staff to have adequate knowledge and skills to perform the functions of a Community Paramedic or an ECP.

The UK has now established University level post graduate qualifications for the ECP.
I visited the Universities of Hertfordshire, Coventry and Sheffield Hallam all of which offer the ECP courses, and Sheffield University, which was involved with the initial Pilot program.

Hertfordshire University was the first University to formalise the ECP training. Dr Julia Williams Principal lecturer explained their course (as in appendix 5). This is a *Post Graduate Certificate in Patient Assessment and Management*. The program was developed in response to initiatives by the UK Government into "Changing the Workforce Programme" (CWP) and "New Ways of Working in Critical Care" (NWWCC). The postgraduate certificate has led the way in delivering a robust academic framework for the expansion in Paramedic care.

Sheffield University developed an ECP course for the pilot program however Sheffield Hallam University has taken over the provision of the post graduate ECP training course as they also provide the undergraduate Paramedic Program.

I spoke with Professor Malcolm Woollard: *Professor in Pre-hospital and Emergency Care & Co-Director, Pre-hospital, Emergency & Cardiovascular Care Applied Research Group, Coventry University, Honorary Consultant Paramedic, West Midlands Ambulance Service NHS Trust, Professor in Pre-hospital Care Charles Sturt University (NSW, Australia), Honorary Senior Research Fellow, Monash University (Victoria, Australia).* Professor Woollard has excellent credentials to comment on the education levels of Australian and UK Paramedics, at both an under graduate and post graduate levels.
It is Professor Woollards belief that the Australian ICP's level of education, place them in a good position to progress towards Expanding care (for the Elderly) as all the critical clinical areas and the appropriate knowledge levels are taught, therefore allowing the transition towards an ECP model.

Conclusion

The Churchill fellowship has given me the opportunity to experience first hand programs of expanding ambulance care for the elderly.
No amount of reading on the subject can give as clear a picture as seeing the programs in practice.
What I have seen has shown me that the programs on Long & Brier Islands and Sheffield work for their respective communities.
In both Sheffield and Long & Brier Islands there has been a reduction in hospital admission by patients who have been seen by Extended Care Paramedics. This has resulted in a reduction in psychological stress and trauma to the patients as well as decreasing the workload of the hospital emergency departments.
It has been evident talking to patients, families and the ECP staff that there is a lot of satisfaction with the programs. Many patients are relieved that they don't waste everybody's time by being taken to hospital with a minor condition. The carers and families feel that their loved ones are receiving appropriate, high standard and timely care. Although it is not exciting "sexy", "lights and sirens" work the Extended Care Paramedics report a high degree of job satisfaction in knowing that they are able to help these elderly patients in the most appropriate way.
It appears to me that the level of education afforded the Community Paramedic Practitioners in Canada and the Extended Care Paramedics in the UK is suitable for the work required in the respective communities.
By reducing hospital admissions, both in the A&E Department and on general wards, the extended care programs help to reduce stress on the hospital system. This can be seen in both physical resource and financial terms.
I can't see why these systems could not be transposed to the Australian setting, we have similar population demographics, healthcare systems and levels of Paramedic education.

It is my intention to disseminate my findings to my peers through an article in our national journal, *Response Magazine*, and to submit a presentation to the Annual Prehospital National Conference on the topic *"Expanding care for the elderly, a Churchill fellowship perspective".* I will also be present my findings to prospective patients, when I visit the Senior Citizens Clubs of Canberra.

Recommendations

As a result of my experiences in Canada and the UK, I believe that it is appropriate to try and set up a pilot program in extended care for the elderly in Canberra.

In order to achieve this it will be necessary to involve the key stakeholders including the ACT Ambulance Service, ACT Health Department, Canberra Hospitals, the local GP's, as well as senior citizen groups.

I recommend that we replicate the Sheffield University pilot research program. This would require permission and assistance from Sheffield University. Informal discussions with some of those involved at Sheffield indicate that this could be possible.

The Canadian model appears best suited to smaller isolated communities and would adapt better to Australian rural and remote areas. I would recommend that the Australian College of Ambulance Professionals (ACAP) rural and remote special interest group investigate the feasibility of setting up a pilot study in one or more rural or remote communities using the Long and Brier Islands' model.

Now is the time to be looking into changing our models of care. The federal Government has established the National Health and Hospital Reform Commission (NHHRC) to address health reform.

Their terms of reference include, access to services, ageing population, better integration of acute and aged care services and improving the transition between hospitals and aged care. All of these issues are addressed in the extending care programs in Canada and the UK.

The ACT Health Department is acutely aware of the potential impact of its ageing population on the health system. It's submission to the NHHRC states that the aged population within the ACT is expected to grow much faster than the national average (59% as opposed to 37%) over the next 10 years. It recognises that the ageing population places increase pressures on health and hospital services and that strategies' will need to reflect this.[4]

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Appendix 1


New Brunswick
Prince Edward Island
Amherst
Pugwash
Wallace
Oxford
Springhill
Tatamagouche
Halfway River
Wentworth
Parrsboro
Five Islands
Londonderry
Economy
Balmoral Mills
Ferry to Wood Island, PEI
Pictou
Trenton
New Glasgow
Westville
Stellarton
Truro
Antigonish
Arisaig
Ferry to St. John, NB
Digby
Port Royal
Bridgetown
Annapolis Royal
Middleton
Kingston
Berwick
Greenwood
Kentville
New Minas
Wolfville
Canning
Windsor
Noel
Walton
Kennetcook
Maitland
Brookfield
Stewiacke
Shubenacadie
Westport
Brier Island
Weymouth
Church Point
Smiths Cove
Mavilette
Meteghan
Kejimkujik National Park
Port Maitland
Ellenwood Provincial Park
Caledonia
Yarmouth
Ferries to Maine
Tusket
Argyle
Pubnico
Wedgeport
West Pubnico
Woods Harbour
Cape Sable Island
Barrington
Shelburne
Lockeport
Liverpool
White Point
Bridgewater
Lunenburg
Mahone Bay
Chester
Peggy's Cove
Halifax
Dartmouth
Bedford
Lawrencetown
Jeddore
Oyster Pond
Sheet Harbour
Sherbrooke
St. Mary's River
Issac's Harbour
Canso
Port Hawkesbury
Port Hastings
Port Hood
Mabou
Inverness
Whycocomagh
Baddeck
North Sydney
Sydney
Sydney Mines
New Waterford
Dominion
Glace Bay
Louisburg
Gabarus
Fourchu
Big Pond
Marion Bridge
St. Peters
Point Michaud
Cape Breton Island
Cheticamp
Pleasant Bay
Meat Cove
Dingwall
White Point
Cape Breton Highlands National Park
Ingonish
Englishtown
St. Anns
Margaree Valley
Margaree Forks
Cap Le Moine
Ferries to NFLD
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N.B.
MAINE
ST. JOHN
Ferry
N.S.
BAR HARBOR
DIGBY
PORTLAND
Ferry
YARMOUTH
Ferry
THE ISLANDS
Gulf of Maine


WESTPORT,
BRIER ISLAND
CENTRAL GROVE
DIGBY NECK
LONG ISLAND
TIVERTON
EAST FERRY
FREEPORT

Appendix 2

Acute, Non Scheduled Care

Hypoglycemia

Minor wound care

Removal of Debris from eye

Acute, Scheduled Care

IV Antibiotics for Cellulitis

Follow-up Evaluation of skin infections

Non Acute, Scheduled Care

Wound evaluation/care

Post discharge evaluation for congestive heart failure (CHF)

Medication compliance

BP checks

Diabetic patient blood sugar checks

Hypoglycemia post treat and release checks

Urinalysis checks

Elderly evaluation in home

Specific Procedures

Tetanus immunization

Phlebotomies

Flu shot immunization

B12 injections

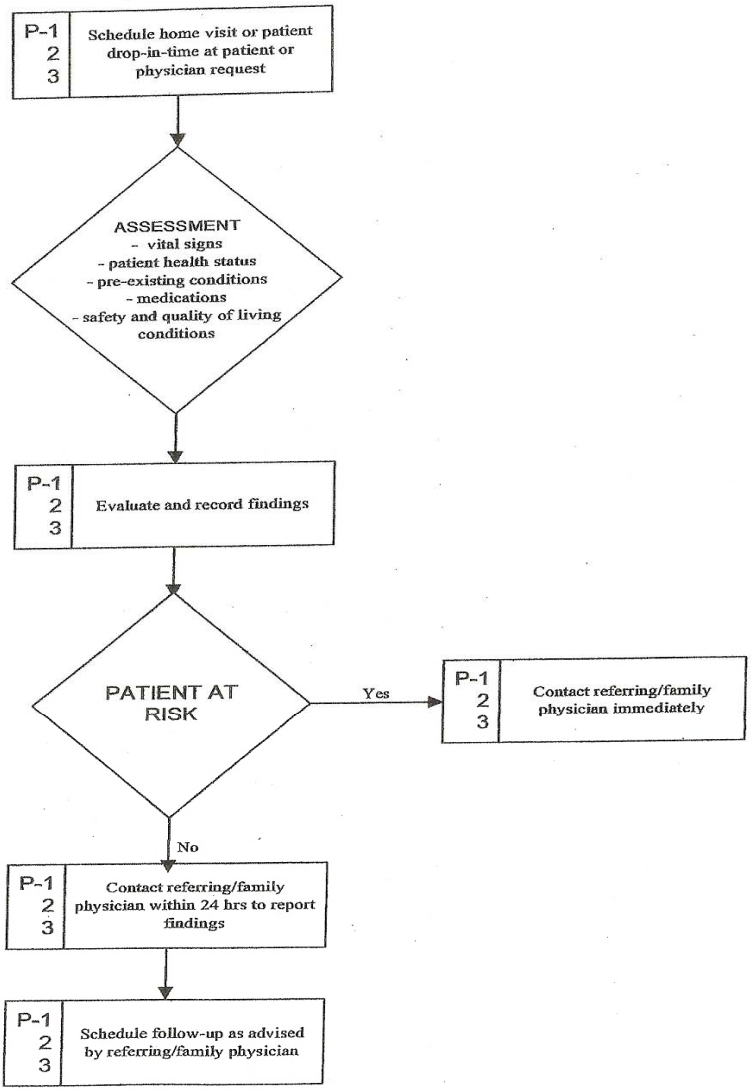
The next pages are examples of the Guidelines introduced to the community paramedicne program in Long and Brier Islands.

Appendix 2 continue

EHS Emergency Health Services

NOVA SCOTIA Department of Health

Protocol: Elderly Evaluation in Home	PDN: 6512.00	Subject: Non-acute, Scheduled Care	Page 1
Approval Date: October 1, 2000	Effective Date: October 1, 2000	Revision Date:	



APPENDIX A

Nova Scotia Adult Cellulitis Guidelines[1]

Definition: Acute spreading inflammation involving the soft tissue, excluding muscle, characterized by recent onset soft-tissue erythema, warmth, swelling and tenderness, considered to be of infective origin.

Grading Scale:

Grade I
- Symptoms/signs restricted to superficial swelling, erythema, warmth, mild lymphadenopathy, and mild pain; absence of systemic symptoms.

Grade II
- dominant systemic signs - fever, chills, lymphangitis and/or rapidly advancing edge.
- mild cellulitis (as defined in Grade I) in high-risk patients[2] without frank immunocompromise[3].

Grade III
- Failure to respond to > 48 hours of adequate oral Rx, severe facial involvement or extensive skin involvement (i.e. if any dimension of the area of skin involved is greater than the distance between the patient's median wrist crease and the point of the elbow).
- a history of episodes of cellulitis requiring prolonged intravenous therapy.
- co-morbid conditions necessitating inpatient therapy.

Grade IV
- orbital, joint, or deep hand involvement.
- cellulitis in immunocompromised patients[3].
- suspicion of necrotizing, deep-seated infection or severe sepsis[4].

---

[1] age $\geq$ 16 years.

[2] For 'high risk patients', see under 'predisposing factors'.

[3] Frank immunocompromise = neutropenia, asplenia, active cancer and/or chemotherapy, SLE, transplant, prosthetic joint or valve, recent mastectomy, HIV with CD4 count < 400.

[4] Severe sepsis = Systemic signs/symptoms with evidence of end organ dysfunction or hypoperfusion (an alteration in mental function is the most consistent feature).

Appendix 3:

Assessment and treatment of minor injuries to emergency nurse practitioner level, excluding radiological interpretations but including the indications for radiography and requesting radiography.
This includes the treatment of minor wounds, wound infections, soft tissue injuries and the requesting of radiographs where appropriate.
The assessment of minor head injury
The assessment of mental function (abbreviated mental test score)
The assessment of the older patient with a fall
The Mobility and social needs assessment of the older patient
The practical skill set that accompanied this included, local anaesthesics techniques, wound care and suturing techniques, principles of dressing and splintage. The special skills taught included: joint examination, neurological, cardiovascular and respiratory system examination, Ear nose and throat (ENT) examination, radiograph requests. The expansion in drug regime was to include a Protocol lead dispensing of simple analgesia (cototamol), antibiotics, tetanus toxoid,
A great deal of care was taken in planning referral mechanisms after patients had been assessed. The range of services put in place for referral included, A&E attendance (either immediate or to a follow up clinic), district nurse, GP, social services.

Appendix 4:

Hi Doug, you visited my mum in Sheffield with the paramedic service and I said I would contact you re comments from patients; sorry it has taken so long. Mum went into hospital later that day, so I have been busy visiting. Thankfully she is out now and fairly stable.

From a patient and family point of view I can only say what a fantastic National Health Service my mum has received over the last few years since she was diagnosed with COPD. As I live about 20 miles away it is reassuring to know an emergency service can be with her quicker than I can.

She has been on oxygen at home for three years and now relies on it 24/7, as she is 78 and lives alone it can be very frightening when she experiences breathing problems. She now requires more frequent visits into hospital when she suffers from an exacerbation of her condition. However since she has been involved with the COPD team linked to her discharge from hospital, she receives medical support which can help prevent unnecessary hospital admissions.

She now receives weekly visits and support from a community nurse linked to her local surgery. This has been very reassuring as the nurse is able to help organise and order drugs and start mum on a course of steroids or anti-biotics as soon as she is aware of signs of deterioration. She can also liaise with the Doctor and avoid unnecessary visits to the surgery. In cases of uncertainty she can request advice and support from the specialist COPD team.

In the latest emergency I was so impressed by how the network of support and knowledgeable advice worked and how well everyone responded as a team. The aim was not to send her into hospital unnecessarily. The paramedic who came as a result of advice given to the nurse was quickly able to assess mum's condition and administer appropriate treatment and drugs to improve her condition. Although mum did respond to the treatment it was suggested a check was made later in the day. Unfortunately she had deteriorated at the next visit four hours later so was then admitted to hospital.

I was very impressed by the confident and competent way the paramedics were able to assess my mum's condition and know what treatment was required. It was also useful that drugs could be administered immediately as usually a prescription is given and the drugs have to be fetched from a local pharmacy.

In conclusion I feel this way of team working is very effective in treating people efficiently in their own home and therefore avoiding a stressful visit to hospital.

I hope this information will be useful for your work. If you require anything else or further information just let me know.

Glynis (XXXXXX) - daughter of Jean (XXXXXX) (COPD patient, Sheffield)

Appendix 5:

University Of Hertfordshire Course Blurb and module outline.

Emergency Care Practitioners (ECPs) or Paramedic Practitioners (PP) are a new breed of healthcare professional. The School offers educational opportunities for experienced paramedics, senior nurses and other healthcare professionals to develop an extended role as an ECP. The University is recognised as a pioneer in this innovative subject area.

Post Graduate Certificate in Patient Assessment and Management

Table 2: Development of Programme Learning Outcomes in the Constituent Modules

This map identifies where the programme learning outcomes are assessed in the constituent modules. It provides (i) an aid to academic staff in understanding how individual modules contribute to the programme aims (ii) a checklist for quality control purposes and (iii) a means to help students monitor their own learning, personal and professional development as the programme progresses. NB the bridging module 2AHP0042 is not included in this table.

		Programme Learning Outcomes																							
		Knowledge & Understanding								Intellectual Skills						Practical Skills						Transferable Skills			
	Module Name	Code	A1	A2	A3	A4	A5	A6	A7	A8	B1	B2	B3	B4	B5	B6	C1	C2	C3	C4	C5	C6	D1	D2	D3	D4	D5
***Primary Care Practice* pathway Level 3 & M**	Patient Assessment	3AHP0052																									
	Acute Medical Conditions and Minor In juries	3AHP0053																									
	Long Term Conditions	MAHP0124																									
	Therapeutic Interventions in Primary Care	MAHP0125																									
***Critical Care Practice* pathway Level 3 & M**	Patient Assessment	3AHP0052																									
	Foundations of Critical Care Concepts and Advanced Resuscitation	MAHP0110																									
	Advanced Airway Management	MAHP0111																									
	Critical Care Transport	MAHP0112																									

Key

Learning Outcome which is assessed as part of the programme

Knowledge and Understanding

A1. Anatomy, physiology, pathophysiology, pathology, pharmacology (general, anaesthetic and systematic)
A2. Comprehensive clinical examination and assessment
A3. Management of the critically ill/ injured patient
A4. Management of minor injuries and illnesses
A5. Management of long term conditions
A6. The legal and scientific principles underlying safe and ethical prescribing and administering of medicines
A7. Relevant legal and professional frameworks
A8. Scientific enquiry, reflective practice and evaluation of practice

Intellectual Skills

B1. Make informed clinical decisions regarding management and treatment
B2. Appreciate their own limitations
B3. Analyse and solve clinical problems using appropriate techniques
B4. Evaluate how current policy and legal frameworks inform practice
B5. Demonstrate depth of insight into philosophical and methodological decision making
B6. Analyse and evaluate practice in light of research and evidence

Practical Skills

C1. Use problem solving approach to patient-centred care
C2. Apply appropriate tests to aid diagnosis
C3. Skillfully utilize relevant treatment techniques
C4. Communicate effectively with patients, carers, and other health care professi
C5. Keep accurate and concise patient documentation
C6. Demonstrate ability to identify and critically consider issues

Transferable Skills

D1. Communicate effectively, both orally and in writing
D2. Work effectively within a team
D3. Demonstrate effective time management and self management including prio setting
D4. Reflect on professional practice
D5. Demonstrate skills of analysis and enquiry

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