



ASSOCIATION OF
AMBULANCE
CHIEF EXECUTIVES



NHS Ambulance Services - Leading the way to care

NHS Ambulance Services Delivering Urgent and Emergency Care



Transforming Urgent & Emergency Care

The Five Year Forward View launched by NHS England in October 2014 sets out how the health service needs to change, arguing for a more engaged relationship with patients, carers and citizens so that we can promote wellbeing and prevent ill-health.

The Urgent & Emergency Care Review being implemented since Sir Bruce Keogh's report in 2013 identifies five key elements as essential in underpinning transformation of the urgent and emergency care system:-

- 1 We must provide better support for people to self-care
- 2 We must help people with urgent care needs to get the right advice in the right place, first time
- 3 We must provide highly responsive urgent care services outside of hospital so people no longer choose to queue in A&E
- 4 We must ensure that those people with more serious or life threatening emergency care needs receive treatment in centres with the right facilities and expertise in order to maximise chances of survival and a good recovery
- 5 We must connect all urgent and emergency care services together so the overall system becomes more than just the sum of its parts

Both the vision for, and the review of, these services emphasise the central role of NHS ambulance services in delivering transformation in provision of health and social care to meet growing demand and improve patient experiences and outcomes.



Leading the way to care

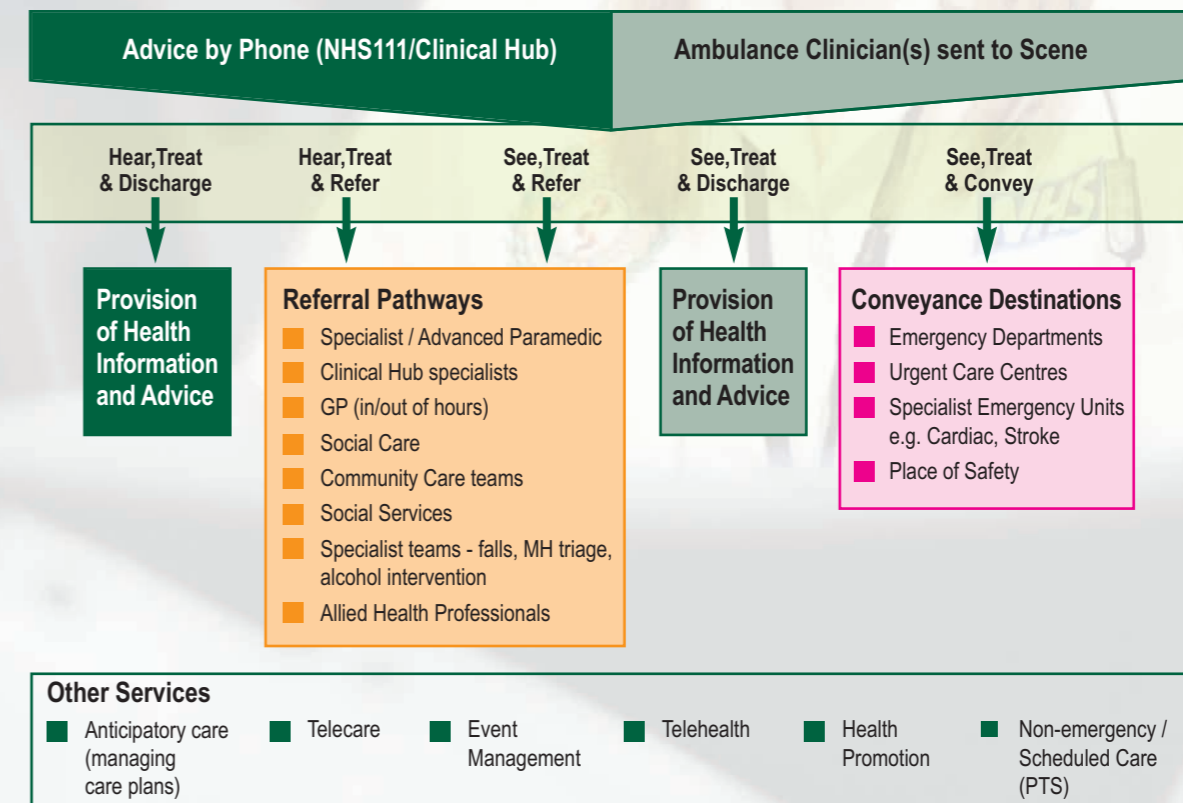
The NHS Ambulance Service plays a crucial frontline role in delivering urgent and emergency healthcare. In transforming the way the NHS operates over the next five years, NHS England has outlined the clinical models available within NHS Ambulance Services which now need to become fully embedded within integrated systems of care to provide seamless, effective and high quality treatment for our patients.

Rather than being viewed as a transport service for patients, the ambulance service should be recognised as a central coordinating hub for provision of clinical advice and a mobile healthcare provider. From receipt of a 999 or 111 call Ambulance Services aim to ensure that each patient receives the right care, with the right resource, in the right place, at the right time – every time.

Ambulance Services can enable a shift in the balance of care away from acute hospitals by delivering more treatment in the home & community settings, or providing clinical advice over the phone, and by working alongside other health & social care professionals to provide integrated, patient focused care.

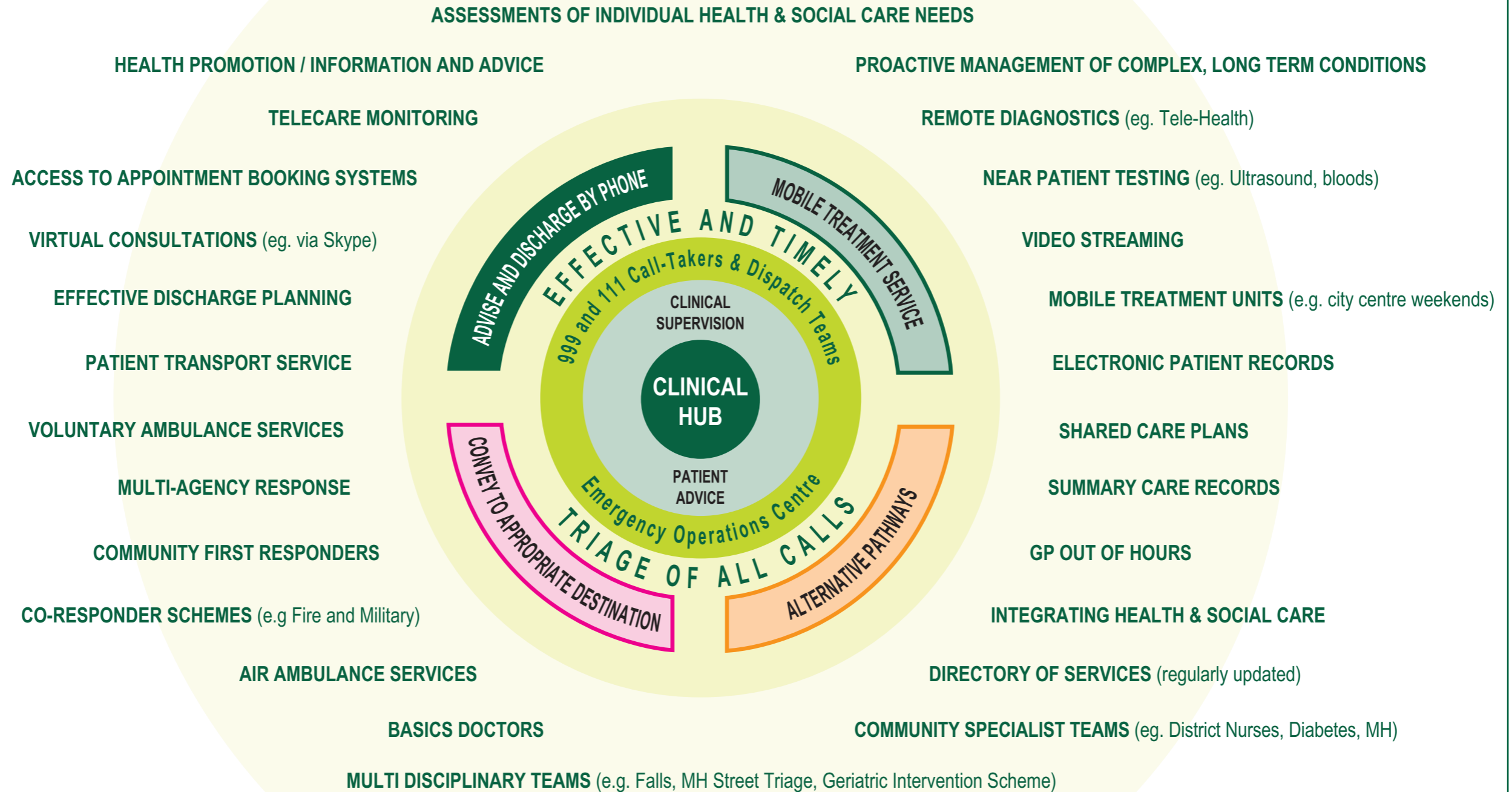
Within the Five Year Forward View, the aim is to improve access to healthcare and improve outcomes for patients – specifically in relation to cardiac, trauma, stroke, mental health, respiratory conditions, the frail elderly and fallers.

NHS Ambulance Services Coordinate 24/7 Clinical Response 365 days/year through the 999 & 111 gateway





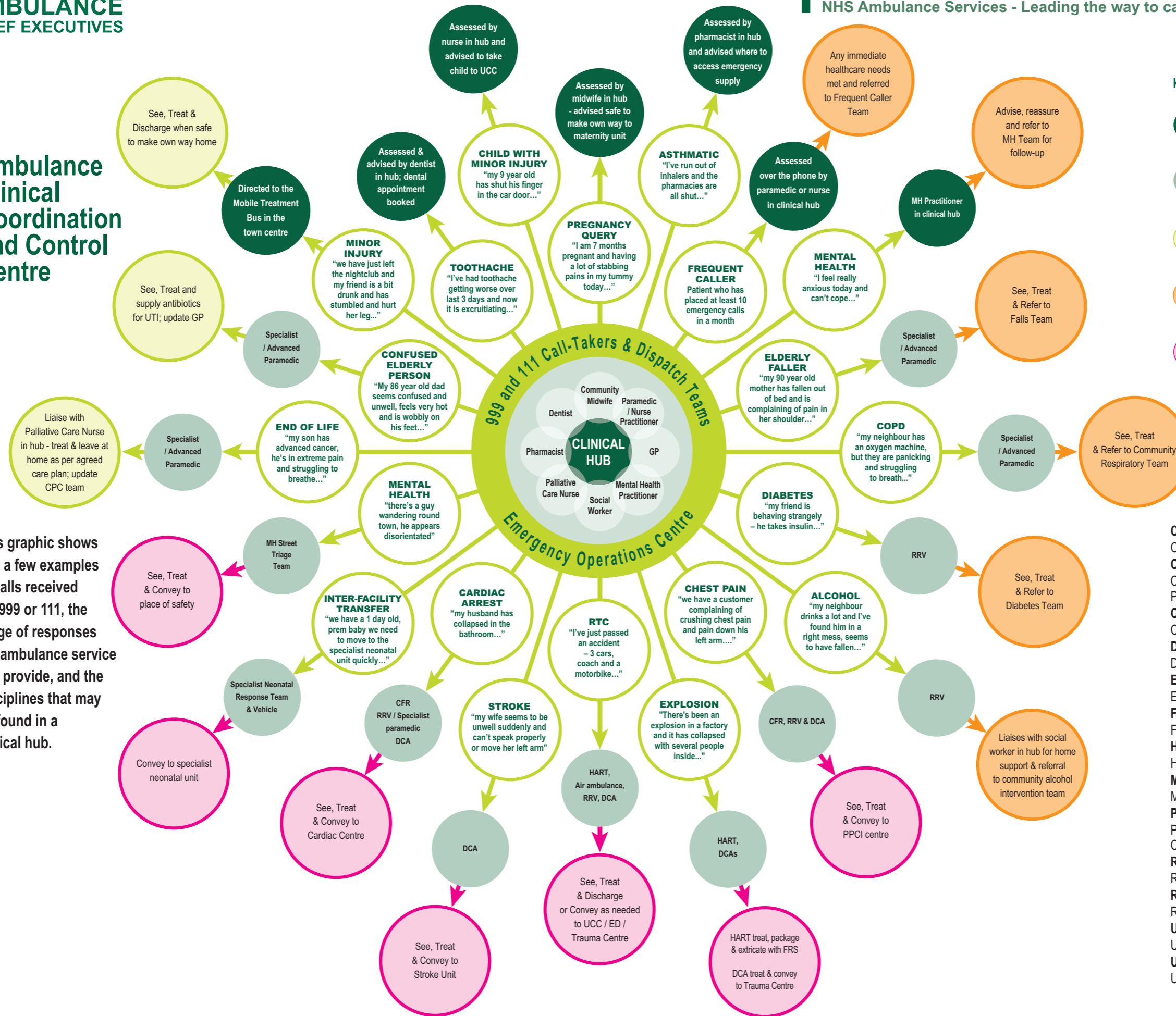
Clinical Response Coordination





Ambulance Clinical Coordination and Control Centre

This graphic shows just a few examples of calls received via 999 or 111, the range of responses the ambulance service can provide, and the disciplines that may be found in a clinical hub.



Ambulance Clinical Coordination and Control Centre

Ambulance Clinical Coordination and Control Centre



Ambulance Clinicians - Key Skills & Capabilities

(these lists are not exhaustive)



EMERGENCY CARE ASSISTANT (ECA)

- Provide assistance to more skilled ambulance clinicians
- May respond as double ECA to non-life threatening cases and routine GP admissions
- May be tasked as a first response to life threatening calls backed up by frontline ambulance
- Patient assessment
- Basic life support
- Automated External Defibrillator
- Oxygen therapy, Entonox, Dextrose 40% gel and Aspirin
- Recognition of deteriorating patient



TECHNICIAN

- Single responders or support to paramedic
- Patient assessment, triage & treatment
- Intermediate airway management
- Manual defibrillation and ECG recognition
- Admin of medicines for life threatening conditions



PARAMEDIC

- Single or double crew responders - cars, bikes, ambulance, air ambulance
- Patient assessment, triage and treatment
- Advanced Life Support
- Manual defibrillation and ECG recognition
- Cannulation
- IV medicines



PARAMEDIC CLINICAL ADVISOR

- Based in Clinical Hub in control room
- Use decision support and triage software to undertake clinical assessment by telephone
- Negotiate appropriate treatment pathways
- Provide clinical advice and onward referral where necessary
- Provide remote clinical support and advice to ambulance clinicians on scene and to control room staff



HART PARAMEDIC (Hazardous Area Response Team)

- Respond as a team; do not convey patients
- Patient assessment, triage & treatment
- Advanced Life Support
- Manual defibrillation and ECG recognition
- Cannulation
- Specialist extrication
- Admin of a wide range of medicines including countermeasures, ketamine and IV medicines
- Capabilities to apply paramedic skills within the inner cordon of incidents involving: Hazardous materials (HAZMAT), Chemical, Biological, Radiological, Nuclear, Explosives (CBRNE), Inland Water, Safe Working at Height (SWAH), Confined Spaces and Tactical Medicine Operations (e.g. Marauding Firearms)



SPECIALIST AND ADVANCED PARAMEDIC AND NURSE PRACTITIONERS (MSc level)

- Mostly single responders, may rotate into Clinical Hub
- Patient assessment, triage and treatment
- Advanced Life Support
- Manual defibrillation and ECG recognition
- Cannulation
- Minor ailments/injuries
- Community wound care
- Complex co-morbidities
- Admin and supply of wide range of medicines including antibiotics, enhanced analgesics, sedatives and IV medicines



CONSULTANT PARAMEDIC

- Minimum MSc and 10 years post registration, holding or working towards a doctorate award
- Practice within DH guidance for AHP consultant appointments and operate at strategic level
- Organisational development role in new and innovative clinical practice
- Development, implementation and review of care pathways
- Provision of clinical advice in complex cases
- Assist clinicians with decision making in consent or capacity issues or termination of resuscitation when outside national guidelines



Improving Access, Patient Experience and Outcomes

Across the UK, Ambulance Services, commissioners and community healthcare professionals are working together to introduce Community Care Pathways, condition specific Referral Schemes and GP Referral Schemes to improve access to appropriate care for all.

Improving Access, Patient Experience & Outcomes

Community Care Pathways and individual care plans are developed and maintained by the patients lead healthcare professional which ensures that patient care is managed and improved, whilst working to support the patient to manage their own condition, with improved confidence whilst avoiding unnecessary trips to Hospital.

Condition Specific Referral Schemes, such as for those patients who fall often, or for patients suffering from COPD (chronic obstructive pulmonary disease) are designed to support patients, and their families in order to provide care and support from community healthcare professionals, to enable them to feel able to manage their condition and ongoing care needs.

GP Referral Schemes provide patients with the opportunity to see a GP, when their own GP is not available to them, ensuring that patients receive the right care, support or advice at the right time, in the right place for their immediate care needs.



West Midlands Ambulance Service - Mental Health Street Triage

Multi-disciplinary teams in cars operating in Birmingham/ Solihull and Black Country areas are made up of a police officer, a mental health nurse (from a crisis intervention background) and a paramedic. Responding to 999 calls and referrals from police control, they undertake street triage where there are suspected mental health issues involved.

Benefits:

- Reduction in unnecessary detentions under the Mental Health Act
- Reduction in police conveyance or police custody attendance thus de-criminalising mental health conditions
- Patients receive both physical and mental health screening at the point of contact
- Provides the most appropriate care pathway, in some cases preventing patients re-entering the system
- All parties involved in the care plan of a patient are notified, reducing both harm and risk to vulnerable patients
- Prevents need for double crewed ambulance despatch/conveyance
- Stronger partnership and collaboration between services
- Reduces number of attendances in both Custody and Emergency Departments
- Increased access to MH services
- Reduced cost to the NHS

In the first three months of operating (752 hours), the teams responded to 500 cases, including 292 referrals from police or other paramedics, and resulted in just 108 requirements for conveyance to a place of safety.

Models of Care

Improving Access, Patient Experience & Outcomes



Improving Access, Patient
Experience & Outcomes



South Central Ambulance Service - Labour Line

Midwife based in SCAS Emergency Operations Centre (EOC) 24/7 providing clinical support and advice to mothers & partners, frontline crews and EOC staff.

Benefits:

- Patient can access 24 hour clinical advice from a clinician that specialises in midwifery
- Frontline and EOC clinicians also have ready access to midwifery advice
- Reduces risk to pregnant patients and their babies
- Reduces clinical risk (including medico-legal risk)
- Reduces complaints
- Reduces unnecessary demand for frontline ambulances
- Better information received by the delivery suites prior to arrival

Average monthly contact rate of 890 per month, or 30 contacts from women and partners per day, with 84% of calls being from women in labour. Significant improvement in patient experience ratings surveyed before and after introduction of this service.

No complaints received in first year of operating. Prior to this a number of complaints were raised, mainly because advice was previously given by delivery suite midwives who were engaged in dealing with face-to-face patient care on the ward.



Models of Care



Yorkshire Ambulance Service - Mental Health Triage in EOC

A Mental Health Triage Nurse has been based in YAS EOC since December 2014 providing advice to ambulance crews attending patients and liaising with MH services on behalf of patients to ensure they receive the right response at the right time in the right place.

Benefits:

- Frontline clinicians and police on scene have ready access to specialist mental health advice and information
- Enables timely sharing of patient information for those known to MH services
- Conveyance to A&E is avoided when unnecessary
- Reduces delays in patient receiving the right care
- Enables direct liaison with mental health teams and community psychiatric nurses
- Reduces unnecessary demand for frontline ambulances
- Improves patient experience

In the first quarter of having a MH nurse within EOC there was a reduction of 455 responses where ambulances would have been sent and the patient potentially taken to hospital. Instead patients were able to receive immediate advice over the phone and were either discharged where appropriate, or care organised through direct liaison with, or referral to, community mental health teams. This equated to approximately 7.6 hours per day use of ambulances contributing 0.1% to performance.

Models of Care

Improving Access, Patient
Experience & Outcomes



Improving Access, Patient
Experience & Outcomes



South Western Ambulance Service - Alcohol Recovery Centre (ARC)

SWASFT provide a service, based in their Mobile Treatment Centre, to better manage 'Binge Drinking' and vulnerability arising from the acute intoxicating effects of alcohol, in a partnership approach with University Hospitals Bristol NHS Foundation Trust, Avon and Somerset Police, Bristol Clinical Commissioning Group, Bristol City Council and the National Licensing Traders Association.

Prior to the ARC being put in place there was no bespoke pathway for those who are vulnerable due to their alcohol intake but are otherwise fit and well. Many such patients end up in A&E or in the care of the police diverting resources, which could be better utilised elsewhere. The ARC operates within Bristol city centre at weekends and other occasions when there is anticipated increase in need and provides a care pathway for patients who need to be managed up to several hours in a suitable environment.

During peak demand the ARC is staffed by 3 paramedics, 4 Emergency Care Assistants, 1 Operational Officer and 1 Support Worker from Alcoholics Anonymous.

Benefits:

- Reduces the number of people affected by alcohol that are cared for in A&E and admitted to hospital
- Supports earlier assessment and initiation of appropriate interventions
- Offers an appropriate and safe alternative to acute hospital care
- Is integrated with other services such as the wider NHS, social care, voluntary sector and police
- Promotes collaborative working between these organisations, for the benefit of patients and to achieve better value for money in public service provision
- Reduces crime and disorder and the broader negative societal impacts of excess drinking
- Can impact public health indicators such as reducing teenage pregnancy

During 2014 the ARC managed 231 patients across 26 nights (average 8.9 patients per 10 hour shift) with an average care time of 2hrs and 17 minutes.

Models of Care



South Central Ambulance Service - Wessex Trauma Unit Bypass Tool

There are around 20,000 cases of Major Trauma every year in England, resulting in approximately 5400 deaths.

Since 2012, across England, patients with suspected major trauma (complex, multi-system injuries) have been transported directly by ambulance crews to Major Trauma Centres (MTC), instead of being taken to the nearest hospital.

The SCAS region covers 2 trauma networks which integrate pre-hospital, acute, on-going and rehabilitation care to make optimum use of their two MTCs (in Oxford and Southampton) and their eight Trauma Units (TU) for less severe cases.

The Wessex Trauma Unit Bypass Tool (TUB Tool) has been designed specifically to give ambulance crews clear guidance whether to attend their nearest TU or when to bypass and go straight to a MTC. Patients who 'trigger' the TUB tool are taken directly to MTC by ambulance or air ambulance, unless they are too unwell to travel the distance. In this event the patients are transported to the nearest hospital where they are stabilised and then transported, usually with a specialist transfer team. Bypassing hospitals in such circumstances can understandably put pressure on ambulance clinicians, however the outcome data is clear that crews are doing the right thing by going straight to dedicated MTCs.

In July 2015 Trauma Audit Research Network (TARN) released information that shows that there has been a huge improvement in the care of patients with major trauma. Patients who have major trauma are now 63% more likely to survive than they were in 2008/9, with 50% of this improvement having taken place since the trauma networks went live in England in 2012. Ambulance services have been a key component pivotal in this improvement in patient care.

Models of Care

Improving Access, Patient
Experience & Outcomes



Models of Care



Management of Sepsis

More than 100,000 people are admitted into hospital with sepsis every year and 37,000 will die as a result of this condition.

Sepsis is a life threatening condition that arises when the body's response to an infection injures its own tissues and organs. Sepsis leads to shock, multiple organ failure and death especially if not recognised early and treated promptly. Earlier initiation of therapy is understood to confer a survival benefit with a possible benefit at reducing mortality and morbidity.

On the Isle of Wight, paramedics are able to administer antibiotics under Patient Group Directives. A subset of paramedics have received additional training to recognise the signs and symptoms of sepsis and institute a care bundle that includes taking of blood cultures and delivery of the first intravenous dose of a broad spectrum antibiotic prior to arrival in hospital.

Additionally, patients in the community that are having chemotherapy treatment and those with long term indwelling urinary catheters are flagged in the clinical hub. These patients are at high risks of sepsis so if they ring in on 999 or 111 and are ill they are passed directly to a clinical advisor who decides whether a sepsis trained paramedic is dispatched to them. The paramedic then assesses the patient and if appropriate can start to administer antibiotics before conveyance to hospital. During the evaluation period, on average patients were receiving their antibiotics within 49 minutes from the first medical contact.

Results so far

In the first year of the project 70 patients were screened using the sepsis tool and treatment was initiated by paramedics for 69 of them - 65 patients had a final hospital diagnosis of sepsis.

The work so far has shown that targeting patients at high risk of sepsis for treatment by paramedics before hospital arrival is possible. Evaluation has demonstrated the care given to be safe, efficient and accurate and may translate into improved mortality. The intervention is low cost and potentially high impact making availability of this service not only desirable, but an imperative. As a result of this initial evaluation the scope for this project has now expanded to include all patients presenting with potential sepsis.



Paramedic referral to Crisis Response Team

A 999 call came in for an 82 year old "sick patient", unsteady on his feet and near fall as his legs were giving way.

Paramedic response dispatched. Patient presented very unsteady on feet with bilateral walking sticks, complaining of painful hip from fall three weeks ago with pain relief prescribed by GP (not regularly taken). Physical assessment revealed no injury or underlying medical need. Mobility 'up and go' assessment passed but unsteady with current aids and environment.

This patient lives alone and normally walks with two sticks. He lost his wife seven years ago, is very lonely and tried to take own life last year. He has some family contact and a shopping helper.

Paramedic made a referral to the multi-disciplinary Crisis Response Team (for <4 hour response).

Outcome of crisis intervention:

- Occupational therapist assessed; mobility aid, adaption equipment requested and provided
- Family engaged in supporting care
- Hand rails fitted
- Blister packs for medication requested
- Cleaning service arranged
- Referred for assistive technologies & pendant alarm
- Referred to AGE UK for befriending and good neighbour service
- Referred for home bathing assistance
- Referral to GP if felt appropriate for memory services

Case Study



Case Study



Managing the frail elderly at home

A 92 year old woman had fallen over and sustained a head laceration in her Care Home. She had no history of loss of consciousness, was not on blood thinning agents and did not want to go to hospital.

Initial response to 999 call: Rapid Response car is sent and ambulance back up requested. The patient and a carer were conveyed to an Emergency Department. The patient was seen by an ED nurse in minors, then reviewed by the ED doctor after a three hour wait. Her wound was closed by an ED Nurse Practitioner and the patient was moved to the Clinical Decision Unit. Due to the lateness in the day the patient needed to be admitted. Patient Transport Service was booked to take back to her home the next day. She returned home and social care was re-instated.

In due course, the patient became a repeat faller and was unable to be cared for in her own home - she moved into a care home.

ALTERNATIVE RESPONSE USING SPECIALIST PARAMEDIC:
A 999 call is received from the care home following a further fall – the call is triaged by a call taker and passed to a paramedic in the clinical hub for assessment over the telephone. A Specialist Paramedic is dispatched. The patient is thoroughly assessed and her wound is closed at the scene. Falls prevention advice and wound care instructions are given to care home staff and the patient is discharged at scene.



Patient Experience



Patient Experience - Alcohol Referral Pathway

I am a 52 year old man living in the Sheffield area. During 2011, I went through a difficult period in my life, which included divorce and redundancy. As a consequence of these circumstances, I also found myself living in undesirable accommodation. It was around this time that my alcohol intake increased and eventually I was drinking an average of up to one litre of whisky a day.

During this period, I had occasion to require ambulance assistance three times. On each occasion I was having seizures (induced by excessive alcohol consumption). On the last occasion, although I don't remember, I responded positively to an ambulance crew asking me if I would like to be referred to an alcohol service to gain support. I still don't remember this taking place however I'm fine with it as it proved to be the start of my journey to recovery.

It didn't take long before I was contacted by the Fitzwilliam Centre (part of the Sheffield Care Trust Substance Misuse Service). The help I was offered included counselling, a support group, medication (although I decided not to use medication and chose the will power route!). I was also signposted to other support services (such as housing and financial advice).

I am very pleased to say that I haven't been drinking for over 6 months and my quality of life has improved immensely. I consider myself very lucky that I haven't suffered any liver or brain damage. I still attend counselling sessions which I find beneficial.

A MESSAGE FOR AMBULANCE CREWS

Someone in my state wouldn't often seek help themselves or are often not in a state to do so. I would like to give a message to all ambulance crews to take every opportunity to try and refer patients with alcohol problems; it might seem as if it will fall on stony ground but on every occasion they should try (please don't be put off). The input from the crew was invaluable for me and could be for others too.

Thank you again, I am very grateful!



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