AYRSHIRE AND ARRAN HEALTH BOARD

A REVIEW OF SERVICES
FOR PEOPLE WITH BRAIN INJURIES
TO INFORM FUTURE PLANNING AND
STRATEGIC ISSUES

“Working with people to improve health”
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FOREWORD

Service Strategies for Improving Health in Ayrshire and Arran

This strategy is one of a number of service strategies that will be produced by Ayrshire & Arran Health Board over the next few years. The development of the Health Improvement Programme identifies the key principles for improving health that will be portrayed in all future service strategy documents.

Following the consultation period the recommendations and actions will form the basis of the commissioning plan which will work towards improving health in Ayrshire and Arran. Each strategy will identify a number of recommendations and action points that will have to be taken into consideration and Ayrshire and Arran Health Board’s priority setting process will be applied to support this decision making process.

The outcome of the Scottish Acute Services Review will have significant implications on the future provision of health services in Ayrshire and Arran, each service strategy will consider the recommendations in due course.

Partnership has been the key successful element and it will be through continued partnership and consultation that our key objective will be realised.

Wai-yin Hatton
Board General Manager
A project Group was convened in August 1997 to explore the issues and service provision for patients suffering a brain injury. Services for people who have been diagnosed as brain injured are considered national and local priorities, in the context of Health of the Nation Targets, and reducing accidents.

The Health Board also recognises the importance of taking into account the Acute Services Review and how this document will influence the future of services within Ayrshire and Arran.

Below are detailed the key recommendations made on the basis of aims included within the Health Improvement Programme and in particular, access to services, and improving health.

- Implement joint exercises between emergency services and Doctors
- Implement SIGN guidelines, for the Management of Head Injuries
- All individuals with moderate to severe brain injury to be assessed for rehabilitation
- Discharge documentation to include advice on how to contact Voluntary Organisations for further support
- Undertake a financial appraisal to ascertain the feasibility of transferring current Extra Contractual Referral monies to provide an Ayrshire based rehabilitation service
- Seek to establish specialist liaison roles within the multi-disciplinary team
- Develop clearly defined protocols for patients with Persistent Vegetative State or in a comatose state
- Provision of a Key Worker within the community setting
- Improve the availability of information
- Identify and address the training needs of carers
- Establish Ayrshire policy for Organ Donation
## PROJECT BOARD MEMBERSHIP

<table>
<thead>
<tr>
<th>Name</th>
<th>Position and Affiliation</th>
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<tr>
<td>Miss H Cameron</td>
<td>Head of Occupational Therapy Services</td>
</tr>
<tr>
<td>Mrs K Darling</td>
<td>Commissioner for Elderly, Young Physically Disabled and Community Services</td>
</tr>
<tr>
<td>Mrs G Evans</td>
<td>Physiotherapist</td>
</tr>
<tr>
<td>Dr J Flowerdew</td>
<td>Consultant Psychiatrist</td>
</tr>
<tr>
<td>Mrs M Gemmill</td>
<td>Service Officer</td>
</tr>
<tr>
<td>Mrs I Johnstone (chairperson)</td>
<td>Lead Commissioner</td>
</tr>
<tr>
<td>Mr A Lanaigan</td>
<td>Accident and Emergency Consultant</td>
</tr>
<tr>
<td>Mrs N MacLean</td>
<td>Community Health Council</td>
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<tr>
<td>Mrs S Martin</td>
<td>Development Manager</td>
</tr>
<tr>
<td>Dr P Mattison</td>
<td>Consultant in Rehabilitation Medicine</td>
</tr>
<tr>
<td>Dr H Maxwell</td>
<td>General Practitioner</td>
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<tr>
<td>Mrs N Masterton</td>
<td>Occupational Therapist</td>
</tr>
<tr>
<td>Mrs A Paterson</td>
<td>Speech and language therapist</td>
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The project group set itself the task of producing a consensus report representing all relevant disciplines in order to guide the Health Board and providers in the development of services for the brain injured.
SECTION ONE INTRODUCTION

The objectives for shaping the future provision of services have been categorised in line with the Health Improvement Programme, detailed below.

A project board was convened with a remit to review current service provision and develop a strategic framework for the future provision of services for individuals with brain injuries and their carers in Ayrshire and Arran. This will take into account specific issues identified in the Health Needs Assessment and recommendations from professional body reports.

The project board provided an arena for open and honest debate for all issues raised during this process.

**National and local influences**

These are essential determinants on the shape of health services in Ayrshire and Arran. There are five strategic aims identified for the Scottish Health Service, which underpin the Health Improvement Programme, they are:

- Developing Primary Care
- Improving Health
- Tackling inequalities in health and in access to health services.
- Developing care in the Community
- Reshaping Hospital Services

The Health Improvement Programme for Ayrshire and Arran 1999-2004, provides a strategic guide to facilitate planning, policy decisions and choices which are consistent with the joint responsibilities of promoting and commissioning better health and services for the people of Ayrshire.

The priorities for the future have been set as follows and provide the principles within which the strategy has been developed. Specifically, services will need to demonstrate that:

- *An identified local health need will be met*
- *The intervention will be clinically and cost effective.*
- *The service will reduce inequalities in health.*
The proposal will improve quality of life or offer the potential for improved quality of life in the future.

Disease or disability will be prevented in the future.

Access for patients and the public will be improved

A medico legal responsibility exists.

**Acute Services Review**

The Acute Services Review, published at the end of May 1998, outlines examples of good practice throughout Scotland and acknowledges the many challenges facing the National Health Service.

As an organisation the NHS still has too few professionals specialising in neuro-rehabilitation, and too few facilities outside major hospitals to rehabilitate people with acquired brain injury. These deficiencies are becoming ever more obvious as pressure grows on the use of acute hospital beds and the rising expectations of service users and carers.

The Review followed two underlying principles:

- “That service organisation should be led by patient need, and that while standards of service provision may be determined and audited nationally, how best to meet these standards should be decided locally.”

- “The need for coherent and co-ordinated delivery of health care, with an integrated approach to treatment in all settings”

**The Way Forward**

The Review details the way forward through a framework allowing flexibility to develop services locally to meet the needs of local population. The Review gives evidence of best practice and sets the scene in as much as, the future is seen as,

- “Virtual” acute general hospital ‘for emergency purposes’

- District General Hospitals serving populations of 100-300,000 would act as ‘building blocks’

- Allow co-operation of specialities/sub specialities across hospitals or Trusts

- Managed Clinical Networks being developed as the model of care to ensure good practice already established is enhanced.

One of the main recommendations from the Neurology and Neurosurgery sub group summary report was, “that each Health Board and its service providers should make
arrangements which explicitly allow patients to access the type of service which is appropriate to their clinical need at any stage of their illness.”

With respect to neuro-rehabilitation, service specifications should ensure that every patient with actual or possible neuro-rehabilitation needs is able to have a timely and expert assessment of these needs, and is given the result of that assessment.

It was the belief of the sub group that the specialist input holds the key to the success of neuro-rehabilitation programmes, bringing together the expertise of specialist professionals from a variety of disciplines to achieve the best clinical outcome and also meet the reasonable expectations of the patient and family.

Studies undertaken in the United States of America have demonstrated the clinical and economical benefits of rehabilitation programmes, however studies in the United Kingdom have not been undertaken. This is an area that has been recommended to the Scottish Office in order to quantify the relationship between costs and health gains in neuro-rehabilitation.

With the above in mind, the project board began addressing priorities for the future service provision in terms of ‘Where are we now?’ ‘Where do we want to be?’ and ‘How do we get there?’ however the document begins with the Health Needs Assessment
SECTION TWO HEALTH NEEDS ASSESSMENT.

*The Report on the Working Group on Services for People with Brain Injuries*

Ayrshire and Arran Health Board established a working group in 1995 to review services to the brain injured.

The working group report was published in 1996, and forms the basis of the formal review and therefore acts as the Health Needs Assessment. The report covered such areas as:

- Estimated incidence and prevalence
- Outcomes in survivors
- Value of rehabilitative services
- Service provision
- Identified gaps within the service
- Recommendations for service developments
- Recommendations for further work to improve local understanding of the problem

**Population Effect**

Each year in Scotland almost 5,700 people sustain moderate head injuries. From the figures quoted within the working groups’ original document the incidence of brain injuries appears at the lower limits of international figures, but accurate information is limited, as demonstrated in the paragraph and table below.

“Estimates of incidence rates of brain injury vary widely. Moscato et al (1994) using the definition, “an acquired injury to the brain caused by an external physical force resulting in total or partial disability or impairment” reviewed 15 international prevalence studies. They found that estimates of incidence rates varied from 152 – 430 per 100,000 adult population per year. These widely varying rates are likely to result from different case finding methods and inconsistencies of definitions between studies."
Hospital Discharges of Ayrshire and Arran Residents Aged 15-64 Years

Main Diagnosis: Brain Injury

<table>
<thead>
<tr>
<th>Diagnosis</th>
<th>Number</th>
<th>Bed Days</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sub-Arachnoid Haemorrhage</td>
<td>359</td>
<td>4,596</td>
</tr>
<tr>
<td>Skull Fracture</td>
<td>240</td>
<td>1,191</td>
</tr>
<tr>
<td>Concussion and Cerebral Contusion</td>
<td>1,323</td>
<td>1,684</td>
</tr>
<tr>
<td>Traumatic Intracranial Haemorrhage</td>
<td>133</td>
<td>1,605</td>
</tr>
<tr>
<td>Other Intracranial Injury</td>
<td>1,927</td>
<td>3,580</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>3,982</strong></td>
<td><strong>12,656</strong></td>
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(Source: Ayrshire & Arran Health Board Report: Working Group on Services for People with Brain Injuries: March 1996)

Given the figures within the table it would appear the incidence locally is approximately 250 per 100,000 adult population per year.

The graphs, which follow detail numbers of residents, treated for Head Injury.

**Hospital Discharges of Ayrshire and Arran Residents**

**Main Diagnosis: Brain Injury (Excluding SAH)**

**Males: Age Distribution by Cause**

**Rate Per 10,000 Population**

**1994**

![Graph showing age distribution by cause for Head Injury in Ayrshire and Arran residents aged 15-64 years in 1994.](image-url)
Hospital Discharges of Ayrshire and Arran Residents
Main Diagnosis: Brain Injury (Excluding SAH)
Females: Age Distribution by Cause
Rate Per 10,000 Population
1994

The incidence of Subarachnoid Haemorrhage is 0.14 per 1000 per population. For Ayrshire this equates to approximately 52 people per year. It is estimated that 36 people will require ongoing support to varying degrees from Health and Social Work services.

**Outcome**

This varies depending upon the severity of the brain injury, measurement of outcome differs greatly depending upon the setting.

Tertiary Centres - outcome measures vary from centre to centre but are usually based on the Glasgow Coma Scale.

Secondary Care - Rarely measured.

Rehabilitation services - Outcomes are measured by each discipline which vary from centre to centre.

Numerous problems may occur following a brain injury and once the acute phase has passed then these problems may become long term. The problems may range from varying degrees of physical disability to vast personality and behavioural changes. This in turn leads to increased responsibility for carers, family and friends.
In summary the working group reported the following recommendations:

**Information**

a) Further work to be undertaken on gaining better information relating to outcomes of Mild Head Injuries.

b) Agree outcomes and audit projects to be measured especially in relation to rehabilitation services.

**Health Promotion**

a) The Drug Action Group to review the cost of brain injuries where alcohol has been the cause, and detailing possible intervention.

b) Assault was the underlying cause of a surprising number of brain injuries, therefore the group recommended that the Health Board conduct a review of the local epidemiology of injuries resulting from violence, and act as advocates for intervention, by local agencies including consideration of work with the media.

**Acute Services**

a) Regular audits should be implemented, of information transfer from Southern General Hospital (SGH) following an episode of care.

b) The Health Board reviews the volume and nature of service required and develop a service specification for acute rehabilitation services.

c) Discharge planning for brain injured patients be considered as an audit topic by the Area Clinical Audit Committee.

d) The Health Board and Local Authorities seek to increase information available to relatives and carers of people with brain injury, and promote community based support services.

e) The Health Board should liaise with its providers in the development of policies for coma management, and persistent vegetative state.

f) The Health Board and Local Authorities should review services available and consider how best to integrate them to provide individually based care packages.

g) The Health Board to act as advocates for good joint planning arrangements, between the statutory agencies, to allow vocational training services to be provided.
SECTION THREE  WHERE ARE WE NOW?

What follows is a broad description of the services available within the Ayrshire and Arran Health Board area, little appears to have changed since the report from the working group (March 1996)

**Classification of Head Injury**

The description of brain injured in the report refers to any individual who has sustained a Head Injury (HI) or resulting trauma from a Sub Arachnoid Haemorrhage (SAH). It excludes individuals who have been diagnosed with either a cerebral tumour or a stroke.

**Classification**

*The severity of an injury to the brain is measured against the recognised national tool of the Glasgow Coma Scale (GCS)*. Professionals measure the level of consciousness of a person at that point in time by using the Glasgow Coma Score, thus indicating the need for further observation/investigation or treatment.

<table>
<thead>
<tr>
<th>Glasgow Coma Scale</th>
<th>Score</th>
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<tr>
<td>Mild</td>
<td>13 - 15</td>
</tr>
<tr>
<td>Moderate</td>
<td>9 - 12</td>
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<tr>
<td>Severe</td>
<td>3 - 8</td>
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**General Requirements**

Service provision can range from Health Promotion in the primary care setting, through secondary, tertiary, rehabilitation care and back into the community. Once into the community this may be with or without the support of community health care teams, social services and voluntary agencies.

Depending upon the severity of the injury, an individual may follow a pathway, which involves different phases of care.
Identified Pathways

Acute Brain Injury

Accident & Emergency Department

Mild

- Admit to short stay ward

Moderate

- Admit to medical/surgical ward

Severe

- SGH

Ayrshire Central Hospital

Specialised services

Home with/without support

Long term care

Note:  denotes informal links
Specialist services include referral to Psychiatrists.

3.1 Primary Care
The primary care teams within the Ayrshire and Arran Health Board area provide a range of professional skills to individuals and their carers. These range from influencing life style through health promotion to counselling, as well as delivering treatments or referral that focuses on the individual. However little is known on the amount of time dedicated by this group, except to say their contribution is of prime importance.

3.2 Secondary Care

Most acute care is delivered within the South Ayrshire Hospitals Trust and the North Ayrshire Trust.

The initial assessment process for Brain Injuries within both Accident & Emergency Departments are very good, with facilities to appropriately treat mild to severe brain injuries. Communications between the Trusts and the Neuro Surgical Unit at the Southern General Hospital (SGH) demonstrate good practice, with CT Imaging links, agreed protocols for referral and transfer of critically ill patients. The Trusts also use standard documentation in line with Scottish Trauma Audit Group (STAG) recommendations.

Following assessment of an individual with a diagnosis of:-

- Mild head injury is either sent home with appropriate documentation or admitted to the short stay facility where close observation can occur.

- Moderate head injury or suspected Subarachnoid Haemorrhage is admitted to either a surgical or medical unit. Communications between the multi-disciplinary team within the trusts are good however, problems occur over specialist rehabilitation care, which is not provided by either Trust.

There is a Rehabilitation Centre based at Ayrshire Central Hospital. Consultants from both Trusts seek the advice of the Consultant in Rehabilitation Medicine and when appropriate transfer patients into this centre. Consultants at Ayr Hospital also use Biggart Hospital to transfer on.

On occasion individuals are referred to specialist centres in Lanarkshire and Edinburgh, Scotcare and Astley Ainsley respectively. Whilst the importance of these facilities are recognised, relatives are reluctant to agree to send their relatives due to the travelling distance involved. Whilst these are not huge numbers (20 patients in total in the past 4 years), the expenditure is growing year on year.

3.3 Tertiary Care
The Neuro surgeons at the Southern General Hospital in Glasgow provide tertiary care. Access to the unit is either direct via Accident & Emergency Department at the Southern General Hospital or referral from Consultants at District General Hospitals.

There are agreed protocols and transfer policies, which appear to be adhered to, however, concern has been raised regarding the quality of discharge documentation from the Neurosurgical unit.

Outcomes are measured but these relate to the initial injury and therefore give little indication to the long-term prognosis and recovery, except to say early rehabilitation is essential to gain maximum recovery.

3.4 Specialist Rehabilitation Facilities

Specialist facilities within the Health Board area are limited. The facility based at Ayrshire Central Hospital provides a service of rehabilitation for Stroke, Multiple Sclerosis and patients with a variety of neurological disorders. However over the past 5 years patients with brain injuries have formed a significant proportion, as much as 20% of the workload. The facility has the potential for 30 beds however, currently utilises 19 beds, therefore, has the capacity to be expanded.

The Douglas Grant Centre situated within the Ayrshire Central Hospital, also offers this service on an outpatient rehabilitation basis and provides a venue to display information relating to social services and voluntary agencies. The services offered in the Douglas Grant Rehabilitation Centre are multi-disciplinary and inclusive of Psychology.

Traumatic head injury may result in impairment of cognitive abilities or physical functioning. It can also result in the disturbance of behavioural or emotional functioning. Therefore, staff involved in the area of rehabilitation should be skilled in these areas in order that they can provide help.

Psychiatry services are available via the psychiatrists based at Ailsa Hospital.

Outcomes

Within the contract there are stipulations regarding measuring and reporting outcomes.
3.5 Community and Ongoing Support

The Local Authorities and the Community Health Care Trust, deliver a range of services provided by a multi-disciplinary team. Services initially revolve around the nursing team with specific skills and therapies from other members of the multi-disciplinary team. As time passes it will be the support from the para-medical staff that is invaluable as the nursing element diminishes. In addition to this, if the individual is severely disabled then there is an intensive home support service. There are also good links with social services and Mental Health services.

The Mental Health sector provides a range of services both on an inpatient and outpatient basis.

Facilities include
- Assessment by the multi-disciplinary team
- Assessment ward
- Long term beds
- Sheltered work places

Referrals to the psychiatrists are predominately from the acute sector, either clinicians within Crosshouse, Ayr, or Ayrshire Central hospitals. On occasions referrals are received via GP’s.

The level of referrals appears to be increasing with resources remaining static. Within the current political climate there is also a drive to reduce the number of inpatient beds available, this in turn has placed additional pressure on the service. In addition, concern was expressed at the lack of “sheltered work places.” Over the years there has been a reduction in sheltered work places due to funding issues outwith the Health Board, which has resulted in the creation of a waiting list for access.

Within Mental Health services excellent discharge arrangements are in place with an overlap period between the secondary and community sectors which supports people in returning to the community.

3.6 Local Authorities

Social Work

The involvement of the social work departments at the North and South Ayrshire NHS Trusts provide a comprehensive service, ranging from advice and support in terms of financial help, organising rehabilitation care and integration back into the community.

Referrals into the departments initiate from either professional colleagues within the two acute trusts or the social work department at the Southern General Hospital.

Once an individual has been discharged or transferred, then the responsibility for the individuals’ and carers ceases or passes to another social worker more appropriately placed to help.
North Ayrshire Council

North Ayrshire Council has over the past three years established and developed services, by providing day care and support to meet specific requirements of head injured people and their carers.

The services provide the opportunity to increase the individual’s capacity to live within the community as independently as possible. The goals include being able to return individuals to employment. While some individuals have successfully returned to gainful employment, for others alternatives need to be found. The day centre based in Kilwinning provides an excellent service, which continues to evolve.

A recent development in association with North Ayrshire and Arran NHS Trust is the opening of a new Disability Resource Centre at Irvine. The Centre is situated on the Ayrshire Central Hospital site and provides a comprehensive range of services to a variety of service users including the young and elderly, physically disabled, people with sensory impairment or a head injury.

Services include,
- support and advice to individuals and carers
- the opportunity to try equipment such as hoists, wheelchairs prior to purchase
- to discuss job opportunities with a dedicated job coach

One of the main objectives of the centre was to form innovative partnerships and to develop services for disabled people at one location and the Disability Resource Centre has now established joint initiatives with the following: -

- Disability Forums
- Carers Centre
- Professional Occupational Therapy staff of the Ayrshire and Arran NHS Trust.
  North Ayrshire Council Social Services Directorate, Community Health Care NHS Trust and the Ayrshire Hospice
- Care Point
- Physiotherapy of the Community Health Care NHS Trust
- Training unit of the North Ayrshire Council
- Cruise Counselling

East Ayrshire Council

Since April 1996 when East Ayrshire Council was established, services have developed and evolved through wide consultation, which included gaining the views of service users and carers. The council has devoted time to developing strong links with voluntary organisations including Headway and are currently in discussion with this organisation to ensure a local profile within East Ayrshire. The council has developed a Personal Assistance Scheme in conjunction with the Disability Forum to promote independent living within the local community. The local Disability Forum manages the scheme on behalf of the council.
Further work is undertaken by the councils’ member/officer group on Road Safety and the Accident Prevention Committee to work towards reducing the incidence of brain injuries.

South Ayrshire Council

A Disability Resource Centre has recently been set up and provides within Ayr Town centre, a range of services. In an attempt to reduce accidents within the home, recently South Ayrshire Council piloted a Home Safety Audit in the Girvan area. Elderly people were visited and offered a free check of a variety of areas, systems and appliances within the home to identify potential hazard areas. It is anticipated that this scheme will prove to be effective in reducing falls etc.

In addition to the above, the three councils North, South and East, in association with the Health Board and the Prince’s Trust have established Carer Centres.

The three local authorities have also worked in close partnership with the Health Board and provider units in developing their respective community care plans. The community care plans reflect the needs of individuals and carers.

3.7 Voluntary Organisations

Once back into the community, individuals and carers rely on ongoing support not only from the professionals but also from voluntary groups such as Headway and The Red Cross Organisation.

As previously stated the voluntary organisation associated with head injuries are essential in providing a range of services, which include

- The giving of information
- Providing support and advice to both the individual and their carers
- Providing a range of individual programmes designed to promote independence
- Providing respite care
- Raising the awareness of the problems associated with sustaining a head injury
- The ability to provide Statistics on the Head Injured.

The voluntary organisations along with the Local Health Council also provide information on users views, regarding strengths and weaknesses of current services.

SECTION FOUR WHERE DO WE WANT TO BE & HOW DO WE GET THERE?
Overall aim

To provide an integrated, comprehensive brain injury service for the people of Ayrshire and Arran, which will, improve health and reduce disability.

Health Promotion/Prevention

To raise awareness of health promotion/prevention issues, of behavioural risk factors associated with morbidity and/or premature death.

In order to do this it is essential that we understand and respond to an identified need and empower people to take control over their own health and environment.

For health promotion to be effective it will be necessary to ensure commitment from all disciplines within all sectors.

It will be fundamental to take into account the Local Health Promotion and Accident Prevention strategies, especially in relation to;

- Alcohol/drug abuse
- Violence as a result of alcohol/drug abuse
- Legislation of protective head gear for cycles
- *Driving safely and reducing speed

Integrated Pathways

Develop, agree and implement integrated pathways of care, across the multi-organisational sectors, including access to appropriate network of skills and expertise.

There is no local data at present to demonstrate the increase in drug related Road Traffic Accidents in young male adults. However this issue has been raised as a potential problem during several project board meetings. The extract below details the extent of the problem in Scotland.

“In a recent survey undertaken by the RAC it has been stated that 20 percent of all motorists admitted to driving while under the influence of drugs, compared with 3 percent in 1986. The motoring organisation also found that 85 percent of 22-25 year old motorists considered drug driving to be “common” among their age group. Strathclyde Police have introduced a new initiative, in response to the concern about the alarming rise in drug-driving which, experts believe has increased nearly four fold over the past decade. The initiative consisted of pilot random roadside drug tests during March 1998. If the pilot is successful new laws will be required before the police can actually use the test routinely.”

Scotsman 12th February 1998
4.1 Proposed Pathways of Care

Flowchart 1 provides a framework detailing the components desired to achieve a seamless brain injury service. (Black line denotes common pathway for all, dash-Dot Line denotes Mild Brain injury, Dotted line denotes Severe Brain injury and Long dash line denotes Moderate Brain injury).

* Rehabilitation services to include Occupational Therapy, Physiotherapy, Speech and Language therapy, Dietetics, Social Work, Psychology and Voluntary Organisation input.

* Specialist Services to include Psychiatry, specialist centres where appropriate out with Ayrshire, i.e. Rehab Scotland, Vocational and Non Vocational training programmes.

To be able to achieve this aim it is necessary to look at each component individually and detail what we are trying to achieve and how do we get there?
4.2 Emergency Services Response

What do we want to achieve?

- Prompt and appropriate Emergency services response
- Appropriate treatment/resuscitation
- Prompt transfer to A&E Department

How do we get there?

To ensure a prompt and appropriate GP/emergency service response by enhancing current service provision by the implementation of care management guidelines, ensuring professional and quality standards are set and monitored on a regular basis. Thus demonstrating the needs of both patients and professionals are being met. The introduction of joint exercises between the ambulance service, fire service and doctors to practice simultaneous extrication and medical treatment could further enhance the service.

RECOMMENDATIONS

Implement joint exercises between emergency services and Doctors

Implement SIGN guidelines, for the Management of Head Injuries.

4.3 Secondary Care

What do we want to achieve?

- Provision of a clear pathway
- A service which provides a co-ordinated approach to, continuous assessment, investigation and treatment for acute brain injuries
- Provides an acceptable level of expertise
- Agree implementation of Professional Body recommendations
- Time scales to be agreed for investigations and transfer to appropriate care setting
- Incorporates a rehabilitation assessment for moderate and severe brain injured individuals
- Agree documentation to accompany individual
- Formal networks/communication links between organisations/disciplines
- Co-ordinated discharge plans
- The ability to produce reliable statistical information as and when required
How do we get there?

The patient will have immediate access to a consultant led service with skills and expertise from the multi-disciplinary team. Professionals should adopt professional body recommendations/guidelines for assessment, investigation and appropriate treatment or transfer of critically ill patients to the Institute of Neurosciences in Glasgow.

Facilities will support the team in delivering effective and efficient care and allow data to be captured for audit/monitoring purposes to demonstrate patient needs are being met. In addition to this systems will be in place to allow data capture for future planning of services.

Discharge planning will begin at an early stage and ensure plans reflect continuing care needs, and for all inpatients include assessment by the Consultant for Rehabilitation Medicine.

It will be essential to patient care that excellent working relationships exist between disciplines and agencies.

Given the fact that not all people sustaining a brain injury will survive, therefore there is a clear need to develop an Ayrshire policy for organ donation

RECOMMENDATIONS

**Implement SIGN guidelines, for the Management of Head Injuries**

To design and implement protocols and standards, which ensures the identified pathway of care is followed, this will include appropriate discharge arrangements and audit.

To ensure all inpatients receive a rehabilitation assessment

To ensure discharge documentation includes advice on how to contact Voluntary Organisations for further support.

**Develop an Ayrshire policy for Organ Donation**

4.4 Rehabilitation Service

What do we want to achieve?

- Consultant led service, which has input from the multi-disciplinary team,( nursing, occupational therapy, physiotherapy, dietetics, **podiatrist**, speech and language therapy, psychology, social work and Headway)
- Involvement of users and carers in planning services for the future
- A locally accessible service which provides both short and long term rehabilitation
- An individual package of care with appropriate disciplines involved
- Formal networks/communication links between organisations/disciplines
How do we get there?

The provision of an Ayrshire based dedicated rehabilitation service, which will provide a range of skills and expertise aimed at reducing disability and improving health.

It is recommended all patients be referred to this service following an inpatient stay at the Institute of Neurosciences in Glasgow, thus allowing assessment and appropriate care planning to be undertaken. A comprehensive assessment of needs will be undertaken and inclusive of employment/training, education and leisure requirements.

The multi-disciplinary team will be supported by protocols/guidelines to ensure the patient and carers needs are identified and met. Within these protocols it will be essential to incorporate monitoring/audit programmes to demonstrate health/quality gain.

RECOMMENDATIONS

To undertake a financial appraisal to ascertain the feasibility of transferring current Extra Contractual Referral monies to provide an Ayrshire based rehabilitation service

To ensure the identified pathway of care is followed, it will be necessary to design and implement protocols to support professionals.

To seek to establish specialist liaison roles within the multi-disciplinary team (this includes health and social services.)

To ensure robust monitoring/audit methods are incorporated within the care management.

To develop clearly defined protocols for patients with Persistent Vegetative State or in a comatosed state

To adopt relevant professional body recommendations/guidelines

4.5 Specialist Services

What do we want to achieve?

- Formal networks/communication links between organisations/disciplines
- Services to include Psychiatry and Psychology
- Provision and access to sheltered work placements/workshops
- Provision and access to Vocational and Non Vocational training programmes
- The ability to fund placements at appropriate centres

How do we get there?
To ensure the provision and access to specialised services/facilities both locally and nationally when required to meet identified need. These services/facilities to include:

- Psychiatry services
- Sheltered work placements
- Employment opportunities including supported work placements
- Appropriate use of local centres such as – Red Cross House
  Dirrans Centre
  Headway

- Explore the feasibility of developing out-reach services, which are currently provided outwith Ayrshire.

**RECOMMENDATIONS**

To develop and implement protocols for referral

To ensure a net work of skills and expertise that can be accessed

Inter agency resource issues require to be addressed

**4.6 Home Services**

What do we want to achieve?

- To provide continuous support in assisting people to maintain independence in their own home
- An individual package of care with appropriate disciplines involved
- Formal networks/communication links between organisations
- Equal access to employment/training/leisure for individuals with brain injuries

How do we get there?

To provide continuous support in assisting people to maintain independence in their own home, by the provision of a key worker who can access a network of skills and expertise, as and when required.

To work in partnership with statutory agencies to ensure that employment/education needs are met. Further it will be essential for agencies to work together to provide leisure/recreational opportunities for individuals.
**RECOMMENDATIONS**

To ensure the provision of a Key Worker within the community setting

To provide ongoing support within the community

Establish multi-agency working group to develop a policy document to ensure the integrated employment/training/leisure needs of individuals with brain injuries are met.

### 4.7 Residential/Nursing Home Services

**What do we want to achieve?**

- Access to appropriate care setting when necessary
- Provision of appropriate respite facilities
- Continue review process
- Management guidelines/protocol for individuals in a Persistent Vegetative State

**How do we get there?**

To ensure continuing care provision in an appropriate setting by ensuring health/social needs are assessed on a regular basis. Health/social needs will be met through individually designed packages of care jointly provided between the Health Board and Local Authorities.

Clients who are in a persistent vegetative state will have ongoing assessment.

**RECOMMENDATIONS**

To ensure appropriate care packages are arranged which reflects the needs of the individual

### 4.8 Carers

**What do we want to achieve?**

- To provide support for carers, to promote an independent living style, whilst reducing stress
- To provide one access point for information/services
- To provide a diverse range of services that will meet their needs
- To be able to use their viewpoint/comments on current service provision, to help plan services for the future
- Provision of appropriate respite facilities when necessary
How do we get there?

To provide support to carers in a flexible manner in order to promote an independent living style, with the provision of information that is easily accessible and in a format which can be understood. This will allow individuals to choose services/facilities to allow the individual to achieve independence.

It will be useful for carers to have one point of contact that could advise on carers’ centre, advocacy services and the network of support that is available locally and nationally.

Carers will have training needs that require to be met if they are to continue to deliver care at home.

RECOMMENDATIONS

To improve the availability of information

To identify and address the training needs of carers

To identify the concerns of older carers in ensuring the continuing needs of the brain injured person is met

The Project Board has identified the above as being necessary to provide a comprehensive Brain Injury Service. It will be essential that all key partners work in the spirit of collaboration as defined within the White paper “Designed to Care,” and for all stakeholders to own the challenges posed, become involved in the implementation and evaluation process.
Definitions

**Occupational Therapy**
The main aim of occupational therapy is to promote independence through retraining programmes, allowing the individual to overcome disability, thus achieving their maximum level of function and independence in all aspects of life.

**Industrial Therapy**
Industrial therapy, broadly speaking, has the same aims as Occupational Therapy but tends to focus on simple repetitive tasks. Industrial therapy sets out to be a work equivalent and people may get a small sum of incentive money.

**Sheltered Work**
Sheltered work is for people who are disabled in some way. The work is organised so that allowances are made for the performance of the worker. Sheltered work often happens in social firms, which are mixed, disabled and otherwise, and worker co-operatives which, may also be mixed in the same way or they be occurring in sheltered workshops of which the traditional example is Remploy.

**Vocational Training**
Vocational training programmes are programmes, which target themselves specifically at getting people into work.

**Supported Work Programmes**
Supported work programmes involve full rate of pay with the worker having a personnel assistant in support. This can be a temporary or permanent arrangement.

**Local Exchange Trading Schemes**
Local exchange trading schemes do not fit terribly well into any of the above categories. This is an arrangement whereby there is an internal barter system and an internal currency and a group of people agree to provide services and goods to each other. This is an arrangement that has much to offer because it is unlimited in size and very cheap to organise. It is likely to become self-financing. If the local exchange trading scheme takes on contracts outside it can develop real funds and the internal currency can, for some at least, be exchanged for real money.

**Real Jobs in the Open Market**
There is access to real jobs in the open market and large employers like Social Services, the Health Board and the Trusts could play a significant part. An officer who supports and monitors people as they go into work can increase the chances of them staying in employment. There should be an interface with each of these services and there needs to be a component of assessment, review and guidance running right through the scheme.

**Home Services Key Worker**
An individual employed to undertake a specific role, which entails co-ordinating services, giving of appropriate information and collecting appropriate data relating to this client group.
**Enterprise Ayrshire**

Enterprise Ayrshire is part of the Scottish Enterprise network. Its’ core function is to guide and assist in the development of a strong local economy through the development of competitive companies, skills and places in order to create income and employment opportunities for Ayrshire people.

Enterprise Ayrshire assists a number of initiatives designed to increase access to opportunities for people and communities which have been affected by individual circumstances or structural change in the local economy. Working with private and public partners, Enterprise Ayrshire supports a number of training and employment based projects and programmes which are specifically designed for individuals with special needs. The main delivery methods of training for individuals with special needs are through Government funded programmes such as Skillseekers, New Deal and Training for Work.

Vocational training is delivered through a network of Training Providers who are contracted with Enterprise Ayrshire to operate within specific occupational sectors. Those contracted to deliver training to individuals with special needs also offer a wide range of additional support including help with literacy and numeracy, personal development and work preparation. The Careers and Employment Service who confirm that the individual is eligible for the particular programme they wish to participate in make referrals to such training provision.

**Disability Resource Centre (DRC)**

The Centre offers a range of services to people affected by disability including sensory impairments. No referral is necessary.

Assessment of Daily Living Skills is undertaken by professional staff and there opportunities for developing practical skills using the *assessment bedroom, bathroom and kitchen*. Assistive equipment can be supplied where necessary. The DRC is linked to the Community Occupational Therapy service delivered from Social Work Area Teams. The Centre can deal with less complex assessments and arrange equipment supply without delays or waiting lists.

**Information and Advice**

The Centre has information on disability matters in a variety of formats including computer database. All staff are professionally trained and can give advice on a range of issues.
The Centre can run a variety of activities and groups. The subjects vary according to demand but can include relaxation, drama, Open University short course programme, discussion, current affairs, Joint Protection and many more. The Centre staff using links with other organisations and departments within the Council and in the voluntary and commercial sectors, will try to organise or facilitate any activity in which enough people express an interest. Some activities are aimed at disabled people only, while others aim to promote integration between disabled and able-bodied people.
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v The Report on the Working Group on Services for People with Brain Injuries
Ayrshire and Arran Health Board March 1996

vi Glasgow Coma Scale
Jennett and Teasdale The Lancet 1977

vii Extract taken from the Scotsman
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viii White Paper Designed to Care
Scottish Office December 1997