Important disclaimer

No person should rely on the contents of this publication without first obtaining advice from a qualified professional person. This publication is distributed on the terms and understanding that:

1. The authors, consultants and editors are not responsible for the results of any actions taken on the basis of information in this publication, nor for any error in or omission from this publication.
2. The publisher is not engaged in rendering legal, accounting, professional or other advice or services.
3. The content remains valid for a twelve month period after the date of publication.
4. For information on all copyright and intellectual property issues, please contact:

   Ms Anna Donne,  
   Disability Learning and Development Unit  
   Department of Human Services  
   Level 8, 585 Collins Street  
   MELBOURNE 3000  
   Tel: 03 9616 2980  
   Email: Anna.Donne@dhs.vic.gov.au

1 This material is valid until June, 2005.
Acknowledgments

Writers  Cate Elkner, Brian Elkner, Enza Santangelo
Learning Design  Brian Elkner
Project Manager  Enza Santangelo, School of International and Community Studies, RMIT University

The project development team gratefully acknowledges the professional inputs and support that were freely given by the following people and organisations.

Kim Abdurazak  Disability Learning & Development Unit, DHS
Sharyn Amos  Drug Treatment and Health Promotion, Drugs Policy & Services Branch, DHS
Gabby Brennan  Australian Homecare Services
Merrilee Cox  Headway Victoria
Jennie Deane  Victorian Coalition of ABI Service Providers (VCASP)
Anna Donne  Disability Learning & Development Unit, DHS
John Dunton  VicServe
Robin Fisher  Drug and Alcohol Services, DHS Victoria
Jayne French  Child Protection Services, DHS Victoria
Mark Grant  Service Access, Community & Individual Support, Disability Services, DHS
Glen Hardy  ARBIAS
Alison Lowe  Drug and Alcohol Services, DHS Victoria
Lynne McPherson  Child Protection Services, DHS Victoria
Sue Morgan  Service Access, Community & Individual Support, Disability Services, DHS Victoria
Ross Mueller  Service Access, Community & Individual Support, Disability Services, DHS Victoria
Katrina Newman  Headway Victoria
Christine Robertson  RMIT University, School of International and Community Studies
Helen Smith  RMIT University, School of International and Community Studies
The developers would also like to thank the following people for contributing their acting and production skills to the creation of the four case study vignettes.

**Production**
Carly O’Donovan and Craig Young—RMIT Audio-Visual Services

**Talent**
Rebecca Anderson—Moira, Social Worker
Melanie Douglas—Charmaine, Constable Melanie Ryan, Selina, Melissa
Susanna Duffy—Fatima, Reena, Diane
Chris Gafney—Fr Leon, Rowan, Barry,
Zach David Lawler—Person 1, Harry, Angelo
Renee Palmer—Person 2
Mary Helen Pirola—Supervisor (voice)
Aaron Smith—Stephen, Yiannis, Dr Riordan
Sadie Wells—Supervisor (photos)
Afshin Nikouresht—Ahmed (photos)

**Music**
Bruce Jacques and Hayley Weate, RMIT University

**Project management—RMIT University**
Enza Santangelo

**Learning design services—Mansfield Learning Design Pty Ltd**
Brian Elkner

**Multimedia development—neopurple**
Marteen Burger

State Government Victoria
Department of Human Services
## Contents

### Introduction
- Welcome 1
- Program components 2
- Length and scope of the learning program 2

### 1 Understanding ABI 5
  - Preview 6
  - 1.1 What Is Acquired Brain Injury? 7
    - Definition 7
    - What causes ABI? 8
  - 1.2 Touring the brain 13
  - 1.3 Indicators of ABI 17
  - 1.4 Gathering information for referral 19
    - Tools for gathering information 19
  - 1.5 Common misunderstandings 23
    - Intellectual Disability (ID) 23
    - Mental illness 24
    - Other related conditions 25
    - Sources used for this topic 25

### 2 Working with people affected by ABI 26
  - Preview 27
  - 2.1 Principles of person-centred care 28
    - The Human Rights background 28
    - Individualised Planning and Support (IP&S) 29
    - Principles of home-based and community-based care 31
  - 2.2 Stages of Treatment and Recovery 33
    - 1. Medical/acute 33
    - 2. Secondary/rehabilitation 33
    - 3. Tertiary/community re-entry 33
  - 2.3 Tapping strengths and preserving skills 34
Role of the personal carer 34
The ‘compensation principle’ 34
2.4 Practicalities of care 36
Cognitive interventions 36
Communication strategies 36
Memory problems 37
Environmental modifications 37
Sources used for this topic 40

3 Assessing Needs 41
3.1 Legislative requirements 43
The Disability Services and IDPS Acts 43
Guardianship and Administration Act 44
State Disability Plan 45
3.2 Client assessment procedures 47
Administrative Processes 47
Communication 47
Distressing behaviour and personal safety 48
Behaviour that may cause distress 48
Analysing aggressive behaviour 49
Suggested strategies 49
Self-determination and challenging behaviour 50
Working with Families 51
3.3 Documentation and planning 53
Sources used for this topic 53

4 Delivering and evaluating services 54
Preview 55
4.1 Service provider networks 56
The ABI Service System 56
Major ABI agencies 56
4.2 Information sources 60
Published resources 60
Internet resources 61
Video 61
Other resources 61
4.3 Matching needs to services 62
Features of multiple and complex cases 62
Human Services (Complex Needs) Act 2003 62
Networking 64

4.4 Towards re-integration 65

Home and family 65
Work and community 65
Carer education and support 66

4.5 Towards best practice 68

Sources used for this topic 68

Bibliography 70

Glossary 72
Introduction

Welcome

Welcome to the Resource Manual for *Getting your head around ABI*. This manual contains the content of the learning program, together with exercises, self-tests and readings designed to enhance your knowledge of this important area. The Resource Manual is designed to be used in conjunction with the Learner Guide for this program and the online resources that are available on CD–ROM or on your organisation’s intranet.

For learners who may be enrolled in formal Certificate IV programs in disability studies or community services, the Learner Guide contains a series of skills recognition tasks that you will need to save in a folder for submission to an accredited workplace assessor from a registered training organisation. The Resource Manual will refer to these tasks from time to time and you will be expected to use the Resource Manual as a reference to help you complete the assessment tasks.

If you are not enrolled in a formal program, but simply wish to access information about ABI and the services available to people with ABI and their families, the Resource Manual can be used as a ready reference and as a tool that may help you extend your knowledge and practise your skills.

You can find information fast by accessing the Knowledge Base located on the CD–ROM or your organisation’s intranet site. A **Search** facility is available to help you find specific entries for Just-in-Time queries. This Resource Manual also lets you connect to entries in the Knowledge Base to find further information or explore a link, etc.

Knowledge Base entries are indicated by the icon at left. If you are reading this Resource Manual on screen, you can click on the icon to go directly to a Knowledge Base reference. The reference at left will take you to a fact sheet on how to search the Disability Online site for information.

Whether you are studying formally or informally, we hope you find this Resource Manual interesting and useful.
Program components

As well as this Resource Manual, which you can work through online or in print, there is a Learner Guide and a CD-ROM resource. Both are described next.

Learner Guide

The Learner Guide for Getting your head around ABI is a separate document that you can download from the CD–ROM resource or the Department of Human Services’ intranet (if you are an employee).

The Learner Guide is designed to help you plan your pathway through the learning program, perhaps with the help of a supervisor. The Learner Guide provides a summary of the whole program, gives you some tips on how to learn more effectively and sets out the tasks that you will need to complete if you intend to seek formal recognition of your work.

Please ensure that you have a copy of the Learner Guide beside you as you work your way through this Resource Manual.

CD–ROM or intranet resources

Getting your head around ABI has been designed to provide you with maximum flexibility, recognising that you may be in full-time work, with limited time available for study. The learning program has been produced as a CD–ROM that can be uploaded to an intranet or simply played on your personal computer.

The CD–ROM (or intranet program) can be used as an information resource and/or as a learning resource and has been divided into two linked sections, as follows.

- The Knowledge Base contains short explanations of key terms, descriptions of services available and tools that may be used to assess eligibility etc of people with ABI.
- The Learning Environment on the CD–ROM/intranet offers a systematic way of working through the knowledge and skills associated with ABI, providing opportunities for skills practice, self-testing and further reading. The Learning Environment also presents a series of case study vignettes that you can work through as a way of applying your skills and knowledge to authentic situations in various health and community services settings.

Length and scope of the learning program

Getting your head around ABI will take approximately eight hours to complete. There are four topics of roughly two hours duration and each topic includes reading, skills practice activities, action research and a case study vignette that invites you to apply your knowledge and skills to an actual situation.

Getting your head around ABI is designed to provide some of the skills and underpinning knowledge required to achieve competence in one unit of Certificate IV
in Community Services, a component of the Community Services Training Package, which was nationally endorsed in 2002:

(CHCCS6B) Assess and deliver services to clients with complex needs.

You can access a complete copy of this competency unit in the Knowledge Base by clicking on the icon at left or searching the Knowledge Base.

The elements of this competency unit are as follows:

- Assess and analyse client needs
- Identify and provide for the delivery of services to meet client needs
- Evaluate client service delivery.

These elements clearly describe a progression from needs assessment through provision of services to evaluation and the Resource Manual has taken this into account, with an additional section on the nature of Acquired Brain Injury. This gives us four main topics:

1. Understanding ABI
2. Working with people with ABI
3. Assessing needs
4. Delivering and evaluating services.

The Western Metropolitan Region’s ABI Case Management Services have developed a tool to identify referral pathways for people who present with an acquired brain injury. You should print out this sheet and use it for reference throughout this learning program. You may also find it useful to have the referral pathways diagram handy when you support a new client.

Advice to the worker-learner

As you work your way through this learning and information resource, please bear in mind that ABI is a large and complex field of knowledge. New information becomes available nearly every day and, with each new ABI, another person becomes involved in a life so changed that they could never imagine it—let alone live it!

They and their families and friends will often be on a long and difficult road, and you can travel a bit of the journey through your contact with them. You are
not expected to have all the answers and where you don't know, it's quite OK to say so. People will respect you for your honesty and you can always talk to someone (your supervisor, workmates etc) about where the information can be found. If the information is not readily available or accessible, ask for contact details so that you can deliver the information when you find it. Remember to present the information in a style that suits the person's capacity for understanding it as much as possible.

Always know that you're working with and for the person and their family/friends. You need to understand what it is they really want—this can take time and effort from everybody involved. It's always possible that you cannot provide the information or support that they ask for, but you can still assist and support them to find the best options. Be clear about what your role is and what the boundaries are for your involvement. This helps everyone in the long run.

Ask questions of everyone; be courteous and respectful; always expect the unexpected; be professional and humane; and keep your sense of humour. In this field you can expect to be challenged and confronted. Be clear about your values, about why you do what you do. Knowing the limits of what you can cope and work with, is especially important—for yourself, your workplace and particularly the people with an ABI that you are there to help.

Good luck!
1 Understanding ABI

1.1 What is Acquired Brain Injury?

1.2 Touring the brain

1.3 Indicators of ABI

1.4 Gathering information for referral

1.5 Common misunderstandings
In this first section of the Resource Manual, you will be presented with a broad overview of Acquired Brain Injury (ABI) as well as more detailed information about causes and types of ABI, and some of the more common impairments experienced by people with ABI. This involves learning basic information about the mechanics of the brain.

This learning will take place, at your own pace, through your reading of the material in this Resource Manual, graphical demonstrations, activities and information sources available through the Knowledge Base. You will also have the opportunity to apply this understanding of ABI to a ‘real-life’ example, gathering information about a client with a possible undiagnosed ABI so that you can make a referral for further medical and psychological testing.

On completion of this topic, you will be able to

- Describe the nature and incidence of ABI
- Differentiate between ABI, intellectual disability and mental illness
- Outline methods of gathering information for referral of people with ABI.
1.1 What Is Acquired Brain Injury?

Acquired Brain Injury (or ABI) refers to any type of brain damage that occurs after birth. ABI can result from numerous causes, and every brain injury (like every individual) is unique. ABI can affect a person’s cognitive, physical, or emotional functions. In some cases, all three functional areas are involved, with serious effects on the previous level of independence enjoyed by the person with an acquired brain injury. The impairment experienced can range from mild to profound.

In the course of your work, you are likely to be working with clients with ABI, their carers and their families. Quite possibly you have already had contact, professionally or personally, with people with ABI. In this topic, you will gain a deeper understanding of the nature of ABI and this knowledge will enable you to identify their complex and varied needs. This will help you to plan support services that are appropriate to the circumstances and goals of your clients with ABI.

Definition

The National Policy on Services for People with Acquired Brain Injury provides a definition that is quite broad:

Acquired brain injury is injury to the brain which results in deterioration in cognitive, physical, emotional or independent functioning. ABI can occur as a result of trauma, hypoxia, infection, tumour, substance abuse, degenerative neurological diseases or stroke. These impairments to cognitive abilities or physical functioning may be either temporary or permanent and cause partial or total disability or psychosocial maladjustment.²

Many hospitals and community health services in Australia use classification systems that look at diagnoses and symptoms associated with brain injury. The World Health Organisation has the International Classification of Diseases (ICD) and there is also the Diagnostical and Statistical Manual of Mental Disorders (DSMIV).

For an overview of ABI in Australia, click the icon at left and download the Fortune & Wen report of 1999.

² Fortune, N. & Wen, X. (1999), The definition, incidence and prevalence of acquired brain injury in Australia, Australian Institute of Health and Welfare, Canberra, p xii
What causes ABI?

To get to know the population of people with ABI, it is important to understand the various causes of ABI. The major causes of ABI are:

- Brain tumour
- Degenerative neurological conditions
- Infections such as meningitis
- Hypoxia and Anoxia
- Prolonged alcohol use or intensive drinking episodes
- Prolonged use of highly specific toxic drugs
- Stroke
- Traumatic Brain Injury (TBI).

ABI is a major cause of disability, affecting approximately 73,000 Victorians. Of this group, around 31,000 people require personal assistance or supervision sometimes or always. In Australia, ABI affects more men (2.2 per cent) than women (1.6 per cent).  

You can read further details on the nature and causes of Acquired Brain Injury by clicking the icon at left or searching the Knowledge Base.

Knowledge Base

Stroke

A stroke is a disruption to the flow of blood to parts of the brain. Such disruption can result in blockage of the blood vessels in the brain, causing brain tissue to die (infarct) or bleeding into the brain from burst vessels (haemorrhage). Over 40,000 Australians are affected by stroke each year. Of these almost one third are younger than 65.

People who have ABI as a result of strokes are the largest sub-group in the population of people with ABI. With our ageing population, the number of people with stroke-related ABI is increasing.

Traumatic Brain Injury (TBI)

A person can suffer TBI as a result of a blow to the head or a rapid movement of the head that leads to damage to the brain. The sudden movement or force can result in brain trauma, for example by oxygen not being able to get through to brain cells and by bleeding, clotting or bruising.

---

3 Fortune, N. & Wen, X. (1999), ibid., p xviii
TBI, like any brain injury, can be mild or severe, and the impairment suffered can be temporary, long term or permanent. Long term (as opposed to permanent) injury is defined as an injury whereby recovery can occur over a longer time period. A permanent injury would suggest the injury, or the function that has been impaired, will not recover even with rehabilitation and medical treatment. It should be noted that a person suffering from ‘head injuries’ may not necessarily have a TBI. Also, the skull does not have to be fractured for a TBI to occur, nor does the person have to suffer a loss of consciousness.

About 70% of TBIs are caused by motor vehicle accidents. TBI can also result from a fall, accident or assault. A person’s risk of suffering TBI increases dramatically at approximately 20 years of age, with males almost twice as much at risk as females (see Fortune & Wen).

You can read further information on TBI by clicking the icon at left or searching the Knowledge Base, which provides a link to a comprehensive article on TBI and the ‘social burden’ that goes with it.

Hypoxia and anoxia

Brain injuries may result from a substantial lack of oxygen (hypoxia) or a complete lack of oxygen (anoxia) supplied to the brain. People with ABI caused by hypoxia or anoxia are particularly likely to experience short-term memory problems. Some causes of these two conditions are:

- Anaesthetic accidents
- Cardiac arrests
- Drug overdoses
- Electrocution
- Near drowning
- Severe asthma attacks
- Suicide attempts.

Prolonged alcohol and/or drug use

Alcohol and drug use may cause brain injury. Alcohol-related brain injury is abbreviated as ARBI. The prolonged or excessive use of substances other than alcohol, such as heroin, barbiturates and solvents, can result in brain injury. An ABI can also be caused by single or occasional incidents like binge drinking or chroming.

A number of factors can contribute to ARBI. Alcohol has a toxic effect on the central nervous system, affecting a person’s metabolism, heart functioning and blood supply. Alcohol also interferes with the absorption of thiamine (an important brain nutrient). Excessive use of alcohol is commonly associated with poor nutrition. It can cause dehydration, which may result in wastage of brain cells. Being under the influence of alcohol can also lead to falls and accidents that injure the brain.
The situation is complicated by the fact that there is evidence to suggest that people with an ABI (whatever its cause) are at risk of excessive use of alcohol and/or other drugs in their attempts to cope with the changes to their physical, psychological, cognitive and social functions.

You can read further information on Alcohol-Related Brain Injury (ARBI) by clicking the icon at left or searching the Knowledge Base.

---

**Degenerative neurological conditions**

Degenerative neurological conditions can also be a cause of ABI. Brain injury can result from diseases including Multiple Sclerosis (MS), Huntington’s Disease, Parkinson’s Disease, Motor Neurone Disease and Muscular Dystrophy. Unlike other forms of ABI, these conditions do not stabilise and improve with time.

Use the Knowledge Base to gather information on each of these conditions.
Activity 1

Search the Knowledge Base for information on TWO of the neurological conditions mentioned above. Using the space below, write brief notes on each.

Condition A
NAME OF CONDITION
________________________________________________
CAUSE(S), IF KNOWN
________________________________________________
EFFECTS ON CAPABILITY
________________________________________________

Condition B
NAME OF CONDITION
________________________________________________
CAUSE(S), IF KNOWN
________________________________________________
EFFECTS ON CAPABILITY
________________________________________________

As well as knowing about the major causes of ABI, it is important to remember that there are many different types of acquired brain injury, with differing degrees to which independence is affected. A person’s cognitive, physical or emotional impairment as a result of ABI can range from ‘minor’ symptoms—such as short-term memory problems—all the way through to severe disability, or even a permanent coma-like state. ABI can occur suddenly (for example, an accident resulting in TBI) or insidiously (ARBI from prolonged excessive alcohol use or a brain tumour). No two brain injuries are the same. The nature of each individual’s ABI depends not only on the cause, but also on which area of the brain suffers damage.
The next sub-topic provides an overview of the brain and its major functions. Before proceeding however, please try the following activity to review what we have covered so far.

**Activity 2**

(a) Explore THREE sites referred from this section of the manual and, for each one, write down the feature that you found most useful.

SITE 1
NAME ____________________________________________

USEFUL FEATURE ______________________________________
________________________________________________________

SITE 2
NAME ____________________________________________

USEFUL FEATURE ______________________________________
________________________________________________________

(b) Which of these sites would you recommend to a person with an ABI? Give reasons.

________________________________________________________
1.2 Touring the brain

An awareness of the different parts of the brain, their function and the consequences when they are injured, is important in gaining an understanding of ABI. You need to have some basic knowledge about the purpose and function of different areas of the brain to understand the impact and effect of brain injuries. In this section, we will take a quick ‘tour’ of the brain to learn the basic mechanics of this amazing organ.

The Knowledge Base provides a list of sites you can explore to get textual and graphical information on the brain’s structure and some of its main functions.

Knowledge Base

The Lobes of the Cerebral Hemispheres

Figure 1—Overview of the brain
The brain, the spinal cord and the peripheral nerves make up the human body’s nervous system. The nervous system is responsible for the smooth running of bodily functions, sensory perceptions, as well as processes like thought, speech and memory.

In the absence of injury, the various components of the brain and the body’s nervous system work together as a highly complex but integrated unit. Although they work together so effectively, there is a clear division of labour within the brain—different parts and areas of the brain have responsibility for different functions and processes. A working knowledge of the mechanics of the brain helps us to understand brain injury, and how damage to different parts of the brain will lead to different types of symptoms and impairment.

We can think of the brain as comprising four areas known as lobes. Each lobe controls particular functions.

**Frontal Lobe**

The frontal lobe area of the brain is the main site for:

- Attention and concentration
- Awareness of abilities and limitations
- Emotions
- Inhibition of behaviour
- Initiation
- Personality
- Planning and anticipation
- Self-monitoring
- Social and moral reasoning
- Social and sexual behaviour
- Speaking (expressive language)
- Thinking.

Damage to the frontal lobe can result in personality changes, a lack of initiative, inflexibility or problems adapting to new situations.

**Temporal Lobe**

The temporal lobe is that part of the brain involved in:

- Hearing
- Memory (The Temporal Lobe contains the hippocampus, which is concerned with making new memories)
- Organisation
- Sequencing and categorising objects
• Understanding speech.

Damage to the temporal lobe can lead to memory difficulties and problems in understanding what you hear.

**Parietal Lobe**

The parietal lobe of the brain controls such functions as:

• Differentiation of size, shapes and colours.
• Drawing
• Face movements
• Feeling and touch
• Perception of temperature, pain and pressure
• Visual and spatial perception.

Damage to the parietal lobes can lead to problems in telling left from right, difficulty with reading and writing or with tasks like putting together puzzles.

**Occipital Lobe**

The occipital lobe has several functions, but is mainly concerned with:

• Vision (ability to make sense of what is seen).

Damage to the occipital lobe can result in an inability to recognise objects and faces on sight.

Two other main functional areas are the Cerebellum and the Brain Stem.

The Cerebellum is involved in:

• Balance
• Co-ordination
• Skilled motor activity.

The Brain stem helps to govern our:

• Arousal and consciousness
• Attention and concentration
• Breathing
• Heart rate
• Sleep and wake cycles.

If we think about the brain as comprising four lobes with distinct responsibilities, it becomes easier to see how different acquired brain injuries will affect different functions in individuals, depending on which area of the brain has been injured.
Another important fact to remember is that the brain is further divided into two sides, called the left hemisphere and the right hemisphere (see Figure 1 above). The left hemisphere controls the movements of the right-hand side of the body and vice versa. So the nature of physical impairment and movement difficulties that many people with ABI experience will be governed by which hemisphere of the brain was injured.

Activity 3

This activity may also be performed online as part of the Stephen vignette on the CD–ROM or the intranet version of this program. You may wish to do some initial ‘practice’ below.

(a) On the diagram supplied below, label each of the four main components of the human brain.

(b) For each of the following brain functions, write the name of that part of the brain where the function predominantly takes place.

Perception of temperature ________________________________

Speech ________________________________

Memory ________________________________

Emotion ________________________________
1.3 Indicators of ABI

Now that you have an understanding of the mechanics of the brain and how different areas of the brain control different functions and processes, we can focus on the indicators of impairment as a result of ABI. This information will help you to recognise the symptoms and effects of ABI and to consider the possible presence of an ABI in clients who may not have been diagnosed previously. Being aware of the more common symptoms will help you in the process of referral for specialised or secondary diagnosis (see 1.4 below). Knowing about the symptoms will also assist in planning strategies to support people with ABI and their families.

As we have seen, every brain injury is as unique as is every individual. The symptoms and impairment experienced by each person will depend on a wide range of factors, such as the person’s pre-injury capabilities, the cause of the injury, and the affected area of the brain. Most people with ABI will have a combination of symptoms from across the following categories: cognitive, physical, emotional and medical.

Some of the more common indicators of impairment are listed below for each of four categories

Use the Knowledge Base to gather information on each of these categories and to make your own list of indicators.

<table>
<thead>
<tr>
<th>Cognitive</th>
<th>Physical</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lack of insight, poor short term memory, poor concentration, slowed responses, poor planning and problem solving, lack of initiative, inflexibility, talking excessively, difficulties in understanding speech, and inappropriate sexual behaviour.</td>
<td>Fatigue, decreased motor control, balance problems, paralysis, sleep disturbances, communication difficulties, hearing loss, visual problems, difficulty with temperature control and physical effects caused by alcohol and drugs.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Emotional</th>
<th>Medical</th>
</tr>
</thead>
<tbody>
<tr>
<td>Depression, anxiety, mood swings, emotional lability, lack of self control (disinhibition), irritability, temper, impulsivity, socially inappropriate behaviour, self-centredness, dependency.</td>
<td>Hydrocephalus (an abnormal accumulation of cerebrospinal fluid within cavities called ventricles inside the brain), epilepsy, swallowing difficulties, incontinence, changes to senses, headaches, psychiatric symptoms such as visual and auditory hallucinations.</td>
</tr>
</tbody>
</table>
There is often some overlap between the four categories—for example, a person with ABI may have difficulties communicating due to cognitive (problems finding the right words or understanding speech) and physical (muscle weakness of the tongue or lips) impairment. These lists are not exhaustive—you may encounter people who display many other symptoms caused by their ABI. Knowledge of the various indicators of impairment across this range of categories will help you to understand the nature of ABI and its impact upon people with ABI and their families.

The next section will look at gathering information that may lead to a referral.
1.4 Gathering information for referral

At some point, your work with people may involve referring someone for assessment for a possible ABI. The assessment can include identification of a person’s cognitive deficits and remaining capacities and may result in further referral to specialised services. To identify a person who might benefit from assessment, your knowledge of the possible cognitive, physical, emotional and medical impairments as a result of ABI will be of value. There are many circumstances in which you might decide that assessment for a possible ABI is required for a particular individual. Some indicators of an ABI might be the person’s behaviour, level of independent living skills, cognitive functioning and rate of progress. Always remember that any decisions you make should be checked with your supervisor first.

You should ask yourself the following questions to help you make an informed decision about whether a person with a possible ABI should be referred for medical and neuropsychological testing and assessment or to other ABI agencies for other types of specialised support.

- Is it likely that this person has an ABI?
- What are the major concerns for the person or that of the family and the carers?
- What are the major reasons for the person making contact with you?
- How urgent is the contact with you? Who else needs to be involved?
- Who else can assist the person to seek the most appropriate care?
- Does the person have a GP?
- What is the best outcome of the person making contact with you?

Tools for gathering information

We have created a tool you can use to make sure that you have gathered sufficient information to be able to make a referral—in consultation with your supervisor, of course.

If your information-gathering leads you to believe that there is a possible undiagnosed ABI, the next step is to refer the person for assessment. There are a number of ways of testing for ABI, the most common being performed by neurologists and neuropsychologists.

A neurologist is trained in the diagnosis and treatment of disorders of the nervous system. Neurologists perform medical tests to diagnose ABI. A neurological test might involve:

- X-rays
- PET, MRI or CT scans
• Blood tests.

A neuropsychologist is a psychologist specially trained in ABI assessment. Neuropsychologists can make recommendations about an individual’s rehabilitation and management needs. Neuropsychological testing involves:

• Gathering information about the person’s history, level of functioning, current problems, support services and coping mechanisms

• Administration of standardised tests designed to test a range of cognitive functions (memory and thinking abilities).

Activity 4

To do this activity you need to go online, either on the CD–ROM or the intranet version of this program.

Stephen

Stephen is a forty year old man with a history of alcoholism but no record of head injury or mental health problems on his file. Stephen has self-referred to your agency in the hope that he will get access to accommodation for his family—he lives with his two children aged eight and twelve and has been the sole parent since their mother died two years ago. Stephen has moved from a regional city, where he found it impossible to get regular work, and is currently paying moderately high rent for accommodation in an inner suburb of Melbourne. The two girls are enrolled at local primary and secondary colleges.

Stephen tells you about his long battle with alcohol and the effects that his addiction had on his family relationships and his ability to get steady work. He gives you permission to access his file from a drug and alcohol treatment service and he tells you proudly that he ‘graduated’ successfully and has maintained abstinence since just before the death of his wife, about which he clearly has a continuing process of grief, with some guilt feelings. ‘I got off the hard stuff when Rose said she was gonna leave,’ he tells you, ‘and I’ve stayed off it for the kids’ sake. I really had to pull me head in, and I have. The file is closed.’

At first glance, Stephen’s apparent rehabilitation would seem to exclude him from any assistance. However, as you listen to him and observe him closely as he speaks, you notice a few signs of possible ABI. He tells you that he frequently has problems remembering things.

Further discussion about his history reveals that Stephen was in a motor vehicle accident some five years ago. On your prompting, he tells you that he was trapped for several hours in the back of a van that had overturned on a back road, leaving him exposed to the fumes from a drum of industrial ammonia that had spilled. Stephen says that he lost consciousness and was only rescued when a farmer noticed the van on the side of the road.
After further discussion, you arrange with your supervisor to refer Stephen to a neuropsychologist for further tests and you offer to explore the possibilities of residential accommodation and support services for him and his children.

Activity 5

In addition to the online vignette activity, please use the following questions as a way of focusing on the specific needs that are emerging in Stephen’s case (above). Check your answers on the following page.

1. Your supervisor rings for an appointment with a neuropsychologist and finds that there is an eight week waiting list. Do you:
   A. Tell Stephen that you’ll see him again once you have the test results?
   B. Tell him that he’d be better off going to the Office of Housing?
   C. Check the Drug and Alcohol file to see if any assessment for ABI was carried out?
   D. Consult with an ABI support service for advice on how you can help Stephen with his memory and concentration?

2. List the following actions you might take to help Stephen, in priority order.
   A. Contact the local TAFE Institute and arrange for Stephen to see a Careers Advice counsellor?
   B. Arrange for Stephen to seek his GP’s support for a housing or accommodation application?
   C. Work with Children’s Services so that Stephen’s children can learn some strategies to help their father with his memory problems?
   D. Contact the Transport Accident Commission to find out if the accident with the overturned van was recorded?
Answers to Activity 5

1. D (+ C?)  It is important that you immediately start planning ways to meet Stephen’s needs and that he doesn’t have to wait for eight weeks or more while a report is prepared. There are a number of service providers (check the Knowledge Base) that can advise you on helping Stephen with his memory problems. C. is a ‘long shot’ and might be worth trying, in case there is some kind of allied health or social work report that is still relevant, but the important thing is to be responsive and show some initiative in helping Stephen.

2. BCAD  This priority recognises that Stephen initially came to you for help with accommodation. He has acknowledged that the children already help him and this is a strength you can build on, by further developing the children’s helping skills (and perhaps) providing them with some sensitive counselling about ABI. The TAC option is worth exploring, but is a longer term goal. Emergency Services probably attended the accident and there could well be a record. If Stephen was admitted to hospital there will be also a record that his lawyers may be able to retrieve to support a claim for compensation.
1.5 Common misunderstandings

ABI is sometimes confused with other conditions that can cause similar symptoms. In this section, we distinguish between ABI, intellectual disability and mental illness.

This link to the Knowledge Base allows you to view (and print) the definitions contained on the relevant legislation.

Knowledge Base

Intellectual Disability (ID)

Whether an intellectual disability is present or not can be ascertained by administering formal tests, such as an IQ test. Testing alone does not however take into account that people with an ID constitute a widely diverse group, with problems that vary enormously within the many sub-categories. Under formal classification systems, an Intellectual Disability can be diagnosed when the person has significant sub-average general intellectual functioning, accompanied by significant limitations in adaptive functioning in at least two of the following skill areas:

- Communication
- Health and safety
- Home living
- Leisure
- Self-care
- Social/interpersonal skills
- Work.

The onset of the intellectual disability must have occurred before the age of 18 yrs. and the cause may be varied and multiple.

ID and ABI

People with ABI and ID can present with similar symptoms and impairment, such as cognitive and sensory difficulties. However, an Acquired Brain Injury can occur at any age after birth, in contrast to an Intellectual Disability, which most commonly exists from birth. What most distinguishes ABI from ID is the fact that most people with an ABI retain their pre-injury intellectual abilities, the injury having merely impaired the expression of these abilities. With treatment and support, most people
with an ABI can expect their symptoms to improve and to recover some of their former capabilities through rehabilitation. By contrast, people with an ID are more likely to be involved in habilitation programs (being able to make the most of their current capabilities).

For example, a five year old girl born healthy—with normal milestones in terms of her speech, walking, learning and social abilities—may receive a head injury in a car accident. Given that her brain is able to recover, totally or partially, all or some of her normal functions can return through an appropriate rehabilitation program. However, an intellectually disabled five year old—with delayed speech, difficulty in walking, poor learning and social skills—is much less likely to develop new skills in these areas or the ability to lead an independent life in adulthood.

It is important however to remember that in severe or profound cases of ABI, deficits may remain for the rest of the person’s life.

**Mental illness**

Surprisingly, there is no adequate definition as to what constitutes a mental illness. For example, at what point does normal human sadness transform itself into chronic depression? There are no diagnostic tests that can prove one way or another that an individual has a specific illness, such as schizophrenia.

A person is said to have a mental illness if an appropriately qualified professional can elicit the necessary symptoms to meet pre-set criteria that diagnose certain conditions (somewhat like using a recipe book). The diagnosis of mental illness is not always a reliable and consistent process, particularly for complicated cases such as patients who have a co-existing intellectual disability, a drug and alcohol problem, or an acquired brain injury.

The relevant point here is that both ABI and mental illness are difficult to diagnose and indeed, like many other medical conditions, often go undiagnosed. The key point of difference is that mental illness is usually treatable with drugs, whereas ABI is not. ABI is often mistaken for mental illness and people may be treated with drugs that don’t help recovery. Depression, for example, may be a normal psychological response in people who experience an acquired brain injury, but may also result from the injury itself.

ABI is however distinct from mental illnesses, such as schizophrenia, bipolar disorder, depression or obsessive compulsive disorder. Throughout your training you will learn that treatments for these mental illnesses (most commonly medication and psychological therapy) are very different to the support required by people with ABI. It should be noted however that mental illness, like ABI, can affect a person’s cognitive processes. Also, mental health problems such as depression can be significant issues for people with ABI.
Other related conditions

Click here or search the Knowledge Base for information on other conditions that may involve an Acquired Brain Injury, such as Alzheimer’s Disease, Multiple Sclerosis and dementia. This Knowledge Base address offers a spreadsheet of resources on ABI and other conditions, prepared by the Brain Foundation.

This Knowledge Base address also contains an article on mental illness that you can read, search or print.

You can also use this link to access the Health Translation Directory, which may be a useful resource for people dealing with cultural and language issues, such as providing access to information in a range of community languages.

Sources used for this topic

- ABI Strategic Plan, 2001, DHS
- “Acquired Brain Injury”, Disability Online website
- Changed Lives, Headway Victoria
- Brain Foundation website
- Arbias website
- Australian Homecare ABI Training Module.
Getting your head around ABI

2 Working with people affected by ABI

2.1 Principles of person-centred care

2.2 Stages of treatment and recovery

2.3 Tapping strengths and preserving skills

2.4 Practicalities of care
Preview

In this section we will be looking at the practicalities of working with people with ABI. You will be given a grounding in the principles of person-centred care and the Individualised Planning and Support (or IP&S) approach that has been adopted by the Department of Human Services.

We will then move on to a discussion of the recovery process for people with ABI and different types of treatment that can assist in a person’s rehabilitation.

This topic will look at ways that you can identify the skills and strengths of each client with an ABI, and tailor an individualised plan for their support that makes the most of their positive attributes. You will also be introduced to practical strategies that you can use when working with people with ABI to make the most of your relationship.

On completion of this topic, you will be able to:

- Recognise the special needs of people with ABI
- List the support services available to people with an ABI
- Outline the process of identifying the initial medical and neuropsychological testing required by professionals on behalf of people with ABI
- Apply person-centred planning principles to specific case study examples of people with ABI
- Demonstrate awareness of techniques that facilitate communication with people who have ABI.
2.1 **Principles of person-centred care**

**The Human Rights background**

The Universal Declaration of Human Rights specifically refers to the rights of people with disabilities. But it was not until the International Year of the Disabled Person in 1981 that disabled rights really began to be thought of within a human rights framework.

Increasingly, the segregation and marginalisation of people with disabilities—and their lack of choice and control over their lives—are being seen as human rights violations. It is now asserted that for all people to be equal in dignity and rights, changes need to be made in the ‘care’ of people with disabilities. The level of legal and political representation, community integration and individual autonomy of disabled persons are human rights issues.

This might seem a simple statement, and yet for the human rights of people with disabilities to be respected, change—some of it radical—is required. This change needs to take place not only in the systems and practices within the disability sector but within community sectors generally. The people who make up these sectors—workers, carers and people with disabilities themselves—must also change their attitudes, thinking and practices.

The Knowledge Base provides a reading on disability and person-centred planning and some links to further information and resources from the very useful websites of REACH of Louisville and Cornell University in the United States.

---

**Knowledge Base**

The Victorian Department of Human Services’ vision in the State Disability Plan 2002–2012 is about restoring choice and control to people with disabilities. Self-determination, or the capability and freedom to control one’s own life, is a fundamental right of people with disabilities, as it is of all of us. A lot of work still needs to be done to assert this right and to restore it to people whose choice and autonomy have been removed from them in the course of receiving care and support.

An important element in making the DHS vision a reality is the full integration into the community of people with disabilities, including people with ABI. Full integration means the ability to make decisions about one’s future, to be included in community life, to participate in valued social roles and to be recognised for one’s contributions.

---

4 Disabilities can refer to those receiving services from Disability services organisations, but also members of the community with a psychiatric, drug or alcohol problem, or those suffering from social and psychological problems that result in a disability.
When all these conditions are met for disabled people, we will be able to say that they are ‘of’—rather than ‘in’—the community. This principled goal underlies the Individualised Planning and Support (IP&S) approach adopted by DHS, which we will discuss next.

This address in the Knowledge Base provides a Power Point presentation of the State Disability Plan to view or download.

**Individualised Planning and Support (IP&S)**

The IP&S approach is a key initiative that will help DHS to achieve the goals and fulfil the vision of the State Disability Plan 2002–2012. The Plan strives to reorient support services for people with disabilities so that these services are more responsive to people with disabilities; and to their needs, their goals and aspirations. The IP&S model approaches disability support in a way that is based on people’s individual needs and the choices that they make about their lives.

The IP&S approach has a number of core elements, which together promote and support people with a disability so they can:

- Actively participate in community life
- Gain and maintain satisfying relationships
- Express preferences and make choices in everyday life
- Have opportunities to fulfil respected roles
- Continue to develop personal competencies.

These principles of the IP&S approach should inform your work with people with ABI. The individual with ABI or, in the case of children, the individual’s family, need to be involved in any planning and decision-making processes. The person’s goals, preferences, the particulars of their individual situation and their right to self-determination should be central considerations in your work.

Visit the Knowledge Base to view or download an Information Kit on Individualised Planning & Support, issued by the Victorian Department of Human Services for adoption by all its agencies.
IP&S is about delivering person-centred care. Person-centred care can take any number of forms, but there are some key principles underlying it.

- The person at the focus of the planning (the focus person), and those who love the person, are the primary authorities on the person’s life direction.
- It aims to change common patterns of community life, enlisting community members to assist people to define and work towards a desirable future.
- It requires collaborative action and challenges practices that separate people and perpetuate controlling relationships.
- Honest person-centred care can only come from respect for the focus person’s dignity and completeness, in short, their human rights.

Please try the following activity, reflecting on your own professional approach to working with people with an ABI.

Activity 6

Person-centred care can give rise to powerful and confronting emotional and ethical issues for you as a worker. This activity calls for personal reflection only. You might like to make some notes about this issue or to discuss IP&S with your supervisor. There are no ‘answers’ provided, just some space for reflection. It would be useful at this point to read some material on human rights (Knowledge Base 14, for example) and to review your understanding of the State Disability Plan and the principles of Individualised Planning and Support as they might apply to working with people with an ABI.

___________________________________________________________________

___________________________________________________________________

___________________________________________________________________

___________________________________________________________________

___________________________________________________________________
Principles of home-based and community-based care

Individualised Planning and Support is an approach to service delivery adopted by the Victorian Department of Human Services as way of meeting the goals of the State Disability Plan (2002–2012):

*Planning for the future, setting goals and finding ways of achieving these goals is important for many people with a disability to ensure they have independence and control over their life. DHS is committed to supporting people with a disability to make plans that enhance their lives and to put those plans into action. DHS has developed an Individualised Planning and Support approach to help make this happen.*

The goals of the State Disability Plan are listed below and apply to people with an acquired brain injury, which is classified as a disability.

<table>
<thead>
<tr>
<th>Goal 1: Pursuing Individual Lifestyles</th>
</tr>
</thead>
<tbody>
<tr>
<td>To enable people with a disability to pursue their own individual lifestyles, by encouraging others to respect, promote and safeguard their rights and by strengthening the disability support system so that people’s individual needs can be met.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Goal 2: Building Inclusive Communities</th>
</tr>
</thead>
<tbody>
<tr>
<td>To strengthen the Victorian community so that it is more welcoming and accessible, so that people with a disability can fully and equally participate in the life of the Victorian community.</td>
</tr>
</tbody>
</table>

Providing home and community-based support to people with ABI, or helping people in rehabilitation to return home and re-integrate in the community, will help to achieve these goals. Home and community-based care is about helping the person with ABI to achieve self-determination by maximising their level of independence through support tailored to each individual case.

To enable people to return to or continue living in their own home and to access community activities and facilities, a range of supports will be required, depending on the nature and level of impairment. In the home, people with ABI may require assistance with daily living skills (cooking, cleaning, budgeting) and personal care (hygiene, grooming). Some people will need help to develop skills in accessing community facilities such as health care, banks and recreation. Others will want to return to work and may require assistance to achieve this goal.

The Victorian Aids and Equipment Program (A&EP), formerly known as the Program of Aids for Disabled People (PADP), is a Victorian Government program which aims to assist children and adults to access subsidised aids, equipment and home

---

5 DHS Information Sheet, 2003
7 Although this is a State plan, please keep in mind the national and international importance of respecting the needs of people with a disability as outlined by the World Health Organisation charter.
modifications to enhance their safety and independence, support their family and carers and prevent premature admission to institutional care or high cost services (see Knowledge Base 17 for links).

There are various services and resources available to people with an ABI, to help them achieve a measure of independence and control. Such things as assistive devices, environmental modifications and aids to mobility can be used to support individuals in developing and maintaining their skills, as part of an overall rehabilitation program.

Click here or visit the Knowledge Base for information on the Victorian A&EP program.
2.2 **Stages of Treatment and Recovery**

There are three broad stages of rehabilitation for a person with an ABI. These are:

1. **Medical/acute**
   
   This involves intensive medical treatment, which may be needed for survival. For example after a Traumatic Brain Injury (TBI) has occurred, a person can remain in intensive care for days, weeks or months.

2. **Secondary/rehabilitation**
   
   During this stage the person with ABI, often within a rehabilitation hospital setting, receives intensive therapy aimed at restoring previous capabilities as much as possible.

3. **Tertiary/community re-entry**
   
   The people with ABI that you encounter in the course of your work are likely to be in this third and final stage of recovery and rehabilitation. This stage is a long-term and continuing process of developing, strengthening and maintaining skills so that the person with ABI can live independently and be included in the community. Your role as a worker providing individualised support is a key factor in the recovery process.

Click here to find a detailed account of the rehabilitation process, including hospital support services and decision-making processes for families of people with an ABI. This Knowledge Base address includes a link to the Funded Agency Channel’s resources on Cultural and Linguistic Diversity.
2.3 Tapping strengths and preserving skills

Role of the personal carer

A personal carer providing home and community-based support can make a real difference in the independence, quality of life and self-determination of people with ABI. A key strategy in working with people with ABI in the tertiary stage of rehabilitation is tapping the person’s strengths and preserved cognitive functions.

The ‘compensation principle’

The compensation principle is about reducing demands on a person’s impaired functions (memory, thinking and concentration, physical skills) by helping the person with ABI to utilise their strengths, preserved skills and talents. A personal carer can work with the person with ABI to develop their strengths so that these talents and capabilities might compensate for the skills and abilities that have been damaged or lost.

Return to this address in the Knowledge Base for access to resources and support.

Knowledge Base
18 (repeat)

The aim of assisting people to compensate for impairment is to increase their feelings of coping and competency. For a person with ABI, demands made on cognitive functioning can contribute to feelings of inadequacy, sometimes leading to anxiety and depression. Enabling the person to manage tasks and activities that have become difficult as a result of their ABI and encouraging them to utilise their preserved skills and talents, will help promote their sense of achievement and self-confidence.

A personal carer needs to assess the person’s strengths and weaknesses and to develop strategies and activities that ease their difficulties and enable them to use their skills to pursue an independent lifestyle. For example, showing the person with ABI how to use devices such as whiteboards and diaries to compensate for memory problems, will reduce the demand on their impaired cognitive skills. At the same time, the person can be encouraged to pursue activities that tap their strengths and increase their experience of success. For example, if the person had a pre-injury interest in art a personal carer...
might help them to develop their creative skills and in so doing build their confidence and sense of achievement.

Activity 7

This activity can be based on your own experience OR on an interview with a personal carer OR on a situation at work where you have had to appropriately support someone with an ABI.

a. Please identify a day-to-day problem associated with providing a service to someone with an ABI. For example, you may be working with someone who has trouble remembering telephone numbers and often dials the wrong number in the middle of a dialling sequence, with resultant feelings of irritation and helplessness.

The situations could involve:

- Personal care and giving a bath or shower, taking into account the person’s privacy and disability needs
- Memory (as in the example above), where the person may need travel training to get to and from home to see their GP
- Mood monitoring, where the person may lose their temper with family and friends, but realises that this is eventually going to have serious repercussions on the quality of these relationships.

b. Use the space below to list a range of solutions—e.g. entering all important numbers into the telephone’s automatic dial-up facility, purchasing a voice-activated dialling system, white board on wall next to phone etc).

c. After considering your present resources (time, money, skills etc), choose the solution that is most likely to achieve the effect desired by the person with an ABI. Give reasons for your choice.

What is the problem?

Possible solutions?

Best solution for this person, in the circumstances?

Reasons
In this section, you will learn about a range of practical interventions that you will find useful in your work with people with ABI. You can use these practical strategies to reduce demand on the individual caused by their particular cognitive or physical impairment. The emphasis here will be on ‘practical’, on things you can do to help a person with ABI gain access to services that will meet their needs. We again emphasise that you don’t have to acquire professional knowledge and skills to be able to deliver responsive and sensitive service. You do however need to ‘know about’ what professionals contribute to the process and what secondary consultation services are available. For people with major deficits, your supervisor will need to arrange referral to ABI behaviour consultancy services—see the Knowledge Base for more details.

Cognitive interventions

Cognitive impairment, such as problems with memory, language, concentration or confusion, is a common result of ABI. In your work there are some simple strategies that you can employ to reduce the demands that cognitive functioning can make on a person with acquired brain injury.

When a person with ABI is experiencing significant difficulties with cognitive skills, such as during times of stress or change, you can help them to tackle the situation by acting as the person’s ‘frontal lobes’. This might involve the following types of communication strategy:

Communication strategies

There are many communication strategies that can be effective in reducing cognitive demand in people with ABI. Try to keep the following ones in mind when you are communicating with people with ABI.

- Avoid overloading people—break down information and present one idea at a time.
- Minimise stressors and distractions in the environment.
- Allow frequent breaks or rest periods.
- Repeat information so that it is easier to remember.
- Use specific, closed ended questions rather than open questions.
- Use memory aids—writing things down, making signs and labels, etc.
Memory problems

There are some simple interventions that you can teach a person with ABI to reduce cognitive demand caused by memory problems. For many people, their memory problems are significantly helped by writing things down in a diary or notebook. You can encourage the person with ABI to use a diary, carry it with them everywhere and refer to it whenever they are experiencing memory difficulties.

Whiteboards, calendars and alarm clocks can also be useful assistive devices for people with cognitive impairment as a result of ABI. For example, people with severe brain injury can benefit from having a rigid timetable displayed on a whiteboard somewhere prominent, such as a bed-side table. You could also help to program the person’s watch so that an alarm reminds them of a daily task, such as taking medication at a given time. Such interventions can play a key role in reducing cognitive demand and helping people live independently.

Environmental modifications

In cases of ABI it is often easier to modify the person’s environment, than to change the person’s behaviour. People with an ABI can be encouraged to make some modifications to their home environment. These changes can help to reduce demand and assist a person to develop and maintain their independent living skills.

With all severe injuries, changes will need to be made to the person’s structural environment, especially if they require a wheelchair or assistance with bathing and toileting. Additionally, structured routines that are clear and formalised assist the person to maintain some control of their daily tasks and ensure that the person feels that they are in charge of where their life is going.

The Knowledge Base provides links to organisations that offer services that help people with a disability to modify their environment in ways that give them better control over their daily lives. Here you can find out about Supported Housing and support for disability modifications in the home, as well as sites who provide access audits for public facilities.

People with an acquired brain injury often benefit from having a structured environment, with established routines and minimal change. A person with ABI can be helped to establish a clear routine for their day-to-day life so that all of the person’s responsibilities and needs (such as meals, chores, personal care, attendance at meetings) are met. Some people will benefit from having this routine displayed
prominently. Routines can involve striving to have the person’s appointments, chores and outings occur at the same time each day or week.

Another environmental modification the person with ABI can make, is to have prompts and reminders displayed around their living space. Encouraging the person with ABI to keep things in the same place around the home can also be helpful (perhaps you can introduce this modification into your own home with your car keys!).

Environmental modifications and strategies can minimise change and provide predictable structure to the daily life of someone with an ABI. However, there will always be occasions and situations where change is inevitable, such as when the carer is ill or goes on holiday, when the house needs renovation, etc. Unpredictability and change can place significant demands on a person with ABI and you will need clear strategies to assist them through the change process. Here are some suggestions.

- Planning ahead and allowing sufficient time to discuss any plans, using communication strategies that reduce cognitive demand.
- If possible, change can be tackled in small increments and incorporated gradually into the person’s routine.
- Clear explanations of what is occurring before initiating any activity, avoiding surprises which may be distressing.
- Surrounding the person with familiar objects and people during times of change.
- Using imaginative approaches to retain some stability—photographs, pictures, favourite things…

Sometimes this process of rehabilitation runs smoothly—each goal is achieved as expected and the person with ABI gradually regains control and capability with help and support. However, in more complex cases carers will need large reserves of patience and tenacity, as in the following case study.
Activity 8

Ahmed

Ahmed has been ‘sleeping rough’ in the St Kilda area for the four weeks since his release from prison. He has been spoken to by the police on several occasions after abusing other people in a local park, which he regards as his personal territory. Ahmed often approaches people to ask for money and support. He tells them how he was bashed in prison and is suing the prison authorities for damages. Up to now, police have seen him as nothing more than a ‘nuisance’.

Ahmed’s story came to a head last week when he was involved in an incident in a block of units near his favourite park. Police were called when Ahmed started banging on the door of a unit at three am, threatening the owner and asking for food and money. Police charged him with trespass, demanding money with menaces and resisting arrest. At a hearing in the Magistrates’ Court, Ahmed’s case was adjourned pending psychiatric advice.

Ahmed’s childhood was spent in war-torn Beirut, where his Lebanese Christian family experienced extremes of violence and terror. His older brother and uncle were assassinated and the family’s home was firebombed, forcing them to flee for their lives. When they arrived in Australia, Ahmed was thirteen years old. His adolescence was spent ‘running wild’ with an ethnically based juvenile gang and he was frequently in trouble with the police. At the age of twenty, Ahmed received a prison sentence of four years for reckless endangerment, trafficking and receiving stolen goods. His family disowned him at this point. During his prison term Ahmed was involved in a serious altercation with other drug offenders and was severely bashed—he served out his sentence in the prison hospital and a damages case against the prison authorities is pending.

On his release, Ahmed had nowhere to go. He has been ‘hanging out’ in the St Kilda area, hoping to catch up with his old criminal associates, but they don’t want to know him now. He is impulsive, prone to violent mood-swings and bouts of paranoia. At this point in his life, a return to prison seems inevitable.
Sources used for this topic

- Victorian State Disability Plan 2002-2012 and internal information sheets from DHS on IP&S
- ‘What is Person-Centred Planning?’ from www.reachoflouisville.com and DHS, Disability Services material
- Changed Lives, Headway.
- HomeFirst Guidelines, December 2003, DHS.
- Arbias website.
3 Assessing Needs

3.1 Legislative requirements

3.2 Client assessment procedures and standards

3.3 Documentation and planning
Preview

This topic takes you through the process of assessing the needs of people with ABI and developing plans that are relevant and tailored to each person’s needs, goals and preferences. In this section, you will add to your knowledge about the nature of ABI and person-centred approaches to care and be introduced to the practicalities of assessment.

On completion of this topic, you will be able to:

- Identify relevant legislative requirements and provisions
- Outline assessment procedures and standards of care for people with an ABI
- Demonstrate techniques for managing behaviours associated with ABI and perceived by many to be challenging.
3.1 Legislative requirements

There is a range of legislation relevant to ABI and different statutes will relate to different aspects of your work with people with ABI. In this section, we provide a brief overview of the major pieces of legislation relating to ABI and how this legislation might affect you as a worker providing support to people with ABI.

The Knowledge Base provides links to the following legislative provisions through the AUSTLII database:

- Accident Compensation Act 1985A
- Accident Compensation and Transport Accident Acts (Amendment) Act 2003
- Accident Compensation (WorkCover Insurance) Act 1993
- Children’s Services Act 1996
- Children and Young Persons Act 1989
- Disability Services Act 1991
- Guardianship and Administration Act 1986
- Intellectual Disability Act 1986
- Workers Compensation Act 1958.

The Disability Services and IDPS Acts

There are two major pieces of Victorian legislation relating to the support of people with ABI. These are the Disability Services Act 1991 and the Intellectually Disabled Persons’ Services Act 1986 (or IDPS). These laws set out the state government’s responsibility towards people with disabilities, provide definitions of disability and state the eligibility requirements for support provided by government agencies such as the Department of Human Services.

The Victorian Parliament passed the Intellectually Disabled Persons’ Services (IDPS) Act in 1986. This Act provides a legal definition of intellectual disability and sets out the Victorian Government’s responsibilities for people with an intellectual disability.

In 1991, the Victorian Parliament passed the Disability Services Act. This legislation sets out the principles for the provision and funding of services for people with a range of disabilities (including intellectual, sensory, and physical disabilities and those with acquired brain injury).
You should be aware that one priority of the State Disability Plan 2002–2012 is for legislative review, so it can be expected that these Victorian laws relating to disability will be amended at the completion of the review process.

**Guardianship and Administration Act**

For some people with ABI, their disability (for example, cognitive impairment) might mean that they are not able to make reasonable decisions about legal, financial or other matters affecting their future. In this situation, the *Guardianship and Administration Act 1986* may be relevant. The purpose of this Act is to enable persons with a disability to have a guardian or administrator appointed in circumstances when the person with ABI needs a representative to act on their behalf.

The *Guardianship and Administration Act* allows for a tribunal to appoint:

- a Guardian—to make personal and lifestyle decisions, and/or
- an Administrator—to make legal and financial decisions.

The Victorian Civil and Administrative tribunal (VCAT) maintains a Guardianship List and has developed a test to assess the level of competence of a person with a disability.

The Act provides safeguards in place to ensure that the rights of the disabled person are protected under the system of guardianship and administration. The system affirms the right of a person with a disability to make decisions that affect their future, unless they do not have legal capacity or competence.

The appointed guardian or administrator is required to:

- Protect the represented person from exploitation and abuse
- Make decisions in the person’s best interests
- Advocate on behalf of the represented person
- Where possible, encourage them to make their own decisions.

The represented person has the right to a re-hearing on guardianship or administration decisions. Furthermore, any person can make an application to the Tribunal for a reassessment of an order if they believe that a guardian or administrator is not acting in the person’s best interests.

Complaints relating to guardianship and administration can be made to the Office of the Public Advocate (OPA), an independent statutory office set up by the *Disability Services Act*. The OPA promotes the interests, rights and dignity of Victorians with disability.
The Knowledge Base links to the Office of the Public Advocate, where you can obtain information on guardianship and administration issues for people with ABI, together with downloadable fact sheets.

Knowledge Base

People whose ABI arises from a motor accident are eligible for payment by the Transport Accident Commission (TAC) for reasonable costs related to medical, ambulance, rehabilitation, nursing and other services offered by approved TAC providers.

The TAC’s role is to:

*pay for treatment and benefits for people injured in transport accidents. It is also involved in promoting road safety in Victoria and in improving Victoria's trauma system. Funding used by the TAC to perform these functions comes from payments made by Victorian motorists when they register their vehicles each year with VicRoads. The TAC is a ‘no-fault’ scheme. This means that medical benefits will be paid to an injured person - regardless of who caused the accident.*

The TAC website is a good source of information on rehabilitation services, service provider eligibility and a range of related matters. We have also included a link to the Victorian WorkCover Authority’s site, which has a search engine and dedicated sections on legislation, basic safety issues and industry specific information on keeping the workplace safe.

Knowledge Base

State Disability Plan

You were introduced to the Victorian State Disability Plan 2002–2012 in the previous topic. The Plan takes a new approach to disability services, such as the IP&S (Individualised Planning and Support) principles, so that the Plan’s vision of the future can be realised:

By 2012, Victoria will be a stronger and more inclusive community—a place where diversity is embraced and celebrated, and where everyone has the same opportunities to participate in the life of the community, and the same responsibilities towards society as all other citizens of Victoria.

The State Disability Plan has identified five priority strategies to help achieve its goals:

1. Re-orient disability supports
2. Develop strong foundations for disability supports
3. Promote and protect people’s rights
4. Strengthen local communities
5. Make public services accessible.
3.2 Client assessment procedures

Administrative Processes

Administrative protocols, processes and forms will vary from agency to agency. You should be familiar with the processes and pro formas that apply to your place of work and to any standard requirements required by the Department of Human Services.

In March 2001 the Victorian Minister for Community Services launched the government's Acquired Brain Injury Strategic Plan. The Plan recognised that people with ABI, their carers, the public and general service providers need assistance to find and receive information about ABI and supports. In order to address these difficulties Disability Services assumed responsibility to manage a project that will lead and guide the development of improved information strategy for these groups.

Communication

In the previous topic you learned about some strategies to ensure that you can communicate effectively with people with ABI. Some of these were not overloading the person with ABI, repeating words or ideas, keeping the conversation focused and dealing with one issue at a time. To ensure that the person with ABI understands and gets the most out of the conversation, another method is to ask them to repeat, in their own words, what you have been saying to them.

During the assessment process, there are some other issues to consider in your communication with people with ABI. The IP&S approach and person-centred care are about ensuring that the person with a disability is an active contributor to any planning and decision-making, and that the person’s needs, preferences and goals are paramount. In order to achieve this, it is vital that the communication between you and the person with ABI is effective, and that the person with ABI feels respected enough to contribute to the process and to express themselves.

To ensure that the person with ABI feels comfortable during the assessment process, you must communicate with them in a way that is non-threatening and non-judgmental. In all your communication with people with ABI, you need to take account of each person’s need to be ‘heard’ and listen to their point of view.

A busy, noisy environment with a lot of distraction can make people feel they are not important and not being valued in terms of their time. It is therefore important to establish a relatively quiet place for meetings, interviews, training and mentoring, etc, places in which they can receive the undivided attention of others.
Distressing behaviour and personal safety

You have already learnt about how ABI affects people’s lives, often in profound ways. The cognitive, physical and emotional impairment resulting from ABI, together with any loss of independence, can lead to further behavioural change in many people. In your work, it is likely that at some time you will encounter people with ABI whose behaviour you will find challenging. Some of the common behaviours that you may find difficult are described next.

- Lack of motivation
- Moodiness or aggression
- Physical intimidation or violence
- Poor control of emotions
- Repetitive actions
- Self injury
- Sexually inappropriate behaviour
- Tactlessness
- Verbal abuse or criticism
- Withdrawal.

In this section, you will be introduced to ideas and strategies to help you deal with this ‘challenging behaviour’. Learning to manage these behaviours will lead to better relationships and outcomes for the person with ABI and their families, and a safer and more satisfying working environment for you. Remember that all parties in the support relationship have a right to feel safe and be respected.

Behaviour that may cause distress

Many factors might be behind behaviour in a person with ABI that can be unusual for them. Sometimes the nature of a person’s disability might directly contribute to their behaviour. For example, cognitive impairment may result in uncontrollable anger outbursts because the person is not being understood. They may be frightened about what is happening or may be feeling pain and physical discomfort, causing behaviour or ‘acting out’ that most people would see as unusual. Other causes might be more indirectly caused—such as an adverse response to medication that leads to behaviour or mood change. It should be added that outbursts of anger do not necessarily lead to physical aggression, especially if they are handled appropriately.

Some people with ABI will display unusual behaviour during times of stress and change. Moreover, for many people with ABI difficult behaviour is caused by emotions associated with their disability, such as frustration, dependence, depression, grief and loss, or repetitive actions they cannot control.

Sometimes, the behaviour is a learned response that has been reinforced for the individual by their environment. Therefore it is important to intervene when people with ABI display difficult behaviour. The longer a person’s behaviour goes
unmanaged, the harder it is to work with the person to achieve change. When this occurs, seek the expertise of professionals, such as clinical psychologists, who are trained to assist people to manage their behaviour.

**Analysing aggressive behaviour**

In order to take steps to manage challenging behaviour, first you have to analyse the behaviour itself. This analysis might involve the following types of question.

- What is the behaviour and why is it perceived as challenging?
- Is there a pattern to the behaviour?
- What factors trigger the behaviour? What can be done to avoid them?
- What purpose does the challenging behaviour serve (for example, expressing anger and frustration, getting sexual gratification)? It is often helpful for the person with ABI to be offered other ways to best meet these needs.
- What approach or combination of approaches is likely to be effective for each individual?
- What level of control and participation can the person with ABI have in any steps taken to manage and change the behaviour?

It is also important to set clearly-defined and realistic goals for behaviour change with the person if they are capable of understanding what is being planned.

The Knowledge Base provides excerpts from a DHS training program on challenging behaviour. You might like to try some of the activities provided here and to practise some of the skills, perhaps with a small group of colleagues.

**Knowledge Base**

24

**Suggested strategies**

Here are some ideas and strategies for working with behaviour that you perceive as challenging. Every person and every situation will require a different approach, but these strategies will be helpful in assisting you to manage challenging behaviour and work towards change.

**Separate the behaviour from the person**

One important approach is to see the person with ABI as separate from their behaviour. This can help you not to take the behaviour personally. Also, keeping the emphasis on behaviour rather than personality can elicit a better response from the person with ABI. This approach directs disapproval away from the individual and onto the behaviour.
Change your approach

Rather than trying to change the human being, think about more achievable types of change to help manage the situation. It might be easier to change the way you and other people respond to the challenging behaviour. The environment can also be changed to remove or minimise triggers for difficult behaviour.

Don't reward inappropriate behaviour

Don’t inadvertently reward behaviour that is inappropriate, for example by giving in to intimidation. Do acknowledge and reward appropriate behaviour.

Ignoring inappropriate behaviour can sometimes be an effective strategy. Arguing, answering or fighting back in the case of aggressive, abusive or threatening behaviour is definitely not a good strategy.

Self-determination and challenging behaviour

As you learned earlier, people with ABI and other disabilities have the right to self-determination. This fact needs to be kept in mind in your management of challenging behaviour. Sometimes, the person with ABI will not want to alter their behaviour, even if it defies social or community norms or upsets the person’s family, friends and carers. You cannot make a person with ABI conform to rules if the person is unwilling to do so. Ultimately, people with ABI have the right to choose how they behave.

The problem is that this right may sometimes come up against your right to feel safe while you are at work. If the person with ABI makes it clear that they are unwilling to change their behaviour, you will need to discuss a solution with your workplace supervisor/s that ensures your safety and wellbeing.

Activity 9

Discuss your workplace’s safety arrangements with your supervisor and list below the arrangements in place that are designed to protect your personal safety and encourage safe work practices when confronted with distressing behaviour.

___________________________________________________________________
___________________________________________________________________
___________________________________________________________________
___________________________________________________________________
___________________________________________________________________
Working with Families

ABI impacts on families as much as on the person sustaining the injury—a family member’s acquired brain injury can often be a devastating event. Adapting to life after a relative experiences an acquired brain injury can cause major upheaval in many families, often putting family relationships under great stress. The experience of ABI brings the family face to face with a range of issues it had never before imagined—grief and loss issues, financial problems, loss of status, loss of dreams for the future, role reversals, and so on. Pressures often lead to family breakdown and loss of friendships and social supports.

For many people with ABI, their families are central to their recovery. Family members are often the carers for someone with an acquired brain injury. They may also be the intermediaries between the person with ABI and the outside world. In addition, many family members find themselves in the role of advocate for them and play an important role throughout all stages of rehabilitation. As a worker, you will most likely be working closely with the families of people with ABI. The needs and goals of families need to be taken into account along with those of the person with ABI. Family members might also need your help to access appropriate support for them—see the role of the personal carer above at 2.3—Tapping strengths and preserving skills.

Every family will be different. In your assessment of the needs of the person with ABI, it is often helpful to assess their family as well. Learning about the particular situation of the family—its strengths and weaknesses, family dynamics, the division of labour, different family members’ attitude to the person with ABI, the family’s coping mechanisms—can help you to provide appropriate support.

The family of a person with ABI might have its own needs—for example, for training about ABI and effective treatment and rehabilitation approaches, learning about ‘self-care’, information about support groups and respite.
Activity 10

To do this activity you need to go online, either on the CD–ROM or the intranet version of this program.

Bradley

Bradley is a seventeen year old who suffered serious brain injury after injecting himself with pure heroin—his first experiment with drugs. Bradley was at a rave party in a large country town with his girlfriend Melissa. When Bradley collapsed and went into a coma, Melissa used her mobile to call an ambulance and the police. Some of Bradley’s friends were arrested and charged with various offences. Bradley was flown by helicopter to a large Melbourne hospital and was in a coma for three days. He has now recovered consciousness and some cognitive ability, although he still cannot speak or move his limbs.

You are a disabilities worker in the country town where this happened. Your first direct contact with the case is through Angelo, who works for the Office of the Public Advocate. The hospital tried to have Bradley discharged and placed in a nursing home and Rowan (Bradley’s father) contacted Angelo for assistance.

Angelo wants to work with you to achieve the short term goal of getting Bradley into a community centre where he can begin a series of programs that will restore some (although limited) control to his life—speech therapy, use of adaptive devices, etc. A longer-term, individualised program will also need to be planned.

There are however a few family tensions that will need to be worked through. Bradley is due to inherit a substantial legacy from his late aunt when he reaches the age of twenty-one—who will decide how this money is to be spent? Melissa and Bradley were deeply in love and were about to announce their engagement—Melissa wants to go ahead with these arrangements, despite the new circumstances. Reena (Bradley’s mother) blames Melissa for what has happened and will not allow her to see Bradley.

How will you work with Angelo and, above all, how will you make provision for Bradley to have a say in matters that affect him?
3.3 Documentation and planning

As we noted earlier, each service provider will have different protocols and procedures. You need to be familiar with documentation and planning as they apply in your workplace with regard to people with an ABI and their families. You should also review your acquaintance with the State Disability Plan and the philosophy of Individual Planning and Support.
4 Delivering and evaluating services

4.1 Service provider networks
4.2 Information sources
4.3 Matching needs to services
4.4 Towards re-integration
4.5 Towards best practice
In this final section of the Resource Manual, we look at the delivery of services to people with ABI. You will be provided with information about the range of organisations and programs with whom you may have contact in your work with people with ABI. You will also learn about the resources available to you so that you can access them should you ever need more information about issues related to ABI.

This topic will help you to gain the knowledge and skills to match different service providers to different people with ABI and ensure that they receive appropriate support that meets their particular needs. It will take you through the processes of referral and follow-up and some issues associated with delivering services to people with complex needs.

You will learn about the importance of evaluation, to ensure that you are following best practice in your work with people with ABI. Evaluation also monitors the performance of service providers to whom you may refer people with ABI, and provides a mechanism for checking that the person with ABI is satisfied with the support they are receiving. At the end of this topic, you will be introduced to the Disability Services Quality Self-Assessment Package.

On completion of this topic, you will be able to:

- Match relevant service provider networks to the specific needs of people with ABI and their families.
- Evaluate services against best practice models.
The ABI Service System

There is a network of service providers in Victoria devoted to assisting people with ABI and their families. Some of these organisations are directly involved in service provision, delivering treatment, support and case management to people with ABI. Others exist to advocate on behalf of people with ABI, to support them and their families and as a source of information and training. The Access and Response teams in the Victorian Department of Human Services play an important part, providing information and assistance with referrals.

The Knowledge Base provides descriptions of and links to a number of service providers for people with ABI and their families. You should spend some time visiting the various websites and familiarising yourself with the available services and resources that can be brought to bear.

Bringing an awareness of this network of service providers to your work with people with acquired brain injury will help you to locate the right organisation or program for each person.

Major ABI agencies

Medical and rehabilitation support

This part of the ABI service system is available to both compensable and non-compensable clients and includes:

- Hospitals
- Rehabilitation centres or units.

Compensable system

The compensable system is available to people who can claim compensation from the Transport Accident Commission (TAC)\(^9\), the Victorian WorkCover Authority or their personal insurer.

\(^9\) There are approximately 1,200 people with ABI who are TAC claimants (2004 figures).
Non-compensable system

The non-compensable system is the government-funded sector and includes the Department of Human Services. DHS Regional Offices have ABI officers to help people with a disability to identify and access appropriate local support services, such as:

- **Case management**—a single contact point for services required by a person with a disability; coordination of support systems and services, with one on one support for clients, their families and carers
- **Recreation**—general recreation, support and activity groups specifically for people with ABI
- **Accommodation**—there are agencies that provide hospital and alternative accommodation for individuals. Respite accommodation (short term) may also be provided.
- **Employment**—there are services that focus on employment options for people with a disability. This may include personal assistance, job skills, and information about awards and conditions.
- **Personal care/attendant care**—this service provides assistance with tasks that a person with a disability has difficulty with, or is unable to perform. This service assists people with disabilities to live in the community, to make choices about their lifestyles and to access those services that are available to the community at large.
- **Carer support/respite**—these services provide families and carers with backup support, counselling, time away from home and, in some cases, accommodation. Some agencies provide financial assistance in securing respite, as well as providing attendant care in the home for a person with a disability.

Overview of services and programs

The next pages provide an overview of some of the agencies dedicated to assist people with an acquired brain injury and the Knowledge Base contains links to most of them. The referral process will be outlined later in this topic, where you will learn more about the various programs and services available for people with ABI in Victoria. People who have ‘compensable’ injuries will generally access privately funded services, which are paid for by the Transport Accident Commission, WorkCover, personal insurance or a court settlement. People who are ‘non-compensable’ include those who suffer an ABI from a fall, an assault and so on. ‘Non-compensable’ people are eligible for services that are available across the community, including those funded by DHS. Remember that each agency has different eligibility criteria, and that there are often lengthy waiting lists.

The table provides an incomplete overview only. Use the Knowledge Base to search for more details on particular services or for other agencies in specific regional areas. The services and programs are listed alphabetically and cover a range of categories—rehabilitation, community-based case management, specialist support services, recreation, accommodation, and so on.
ABI Behaviour Consultancy
Epworth Hospital’s ABI Behaviour Consultancy is
DHS-funded and provides behaviour management
support for people with ABI and their families in the
home or accommodation settings. It also provides
secondary consultation and training in behaviour
management for service providers.

Ann Caundle Centre
This Centre is part of the Bendigo Health Service and
provides short and long term rehabilitation services to
people with acquired brain injury.

ARBIAS
ARBIAS was established in 1990 to provide services for
people with alcohol related brain injury (ARBI).
ARBIAS has expanded and now provides services for
people with acquired brain injury from any cause, whilst
maintaining its specialisation in the areas of alcohol and
other drug related brain injury.

Australian Homecare Services
Australian Home Care Services Pty Ltd is a subsidiary
of the Multiple Sclerosis Society of Victoria and
provides in-home personal care to a client list that
includes people with an ABI.

Bear in Mind
This is a group of people with ABI who support each
other to develop skills and self-confidence and promote
the involvement of people with ABI in the community.
Bear in Mind aims to reduce the isolation and
marginalisation experienced by many people with ABI.

Bouverie Family Services
The Bouverie Centre, Victoria’s Family Institute,
specialises in family approaches to mental health service
provision. One of its ‘specialist teams’ relates to ABI. It
provides counselling, secondary consultation and
training services to professionals and conducts research
on family adjustment to ABI.

Brain Foundation Victoria
The Foundation provides information on a range of
topics related to ABI, particularly ABI caused by stroke
and ABI occurring in children. It provides carer
education and support in a number of metropolitan
regions.

CBDATS
The Community Brain Disorders Assessment and
Treatment Service is a team currently comprising
members from various disciplines, including medical,
nursing, psychology, neuropsychology, occupational
therapy and social work.

The team is physically located at the Royal Talbot
Campus of the Austin-Repatriation Medical Centre, but
provides services statewide (Victoria), either direct or
via teleconferencing

Grace McKellar Centre
This Centre in North Geelong is part of the
Barwon/South West Region and provides short and long
term rehabilitation services to people with acquired
brain injury.

Headway Gippsland
Headway Gippsland provides a range of information and
support services to people with brain injury and their
carers in the Gippsland area.
Headway Victoria
Headway provides a comprehensive 'gateway' to Victorian service providers, a regional map of support groups, advocacy services and the 'Changed Lives' information series.

HomeFirst
Since 2000, the HomeFirst program has provided home and community-based support to people with an acquired brain injury. HomeFirst is about enabling people with ABI to live as independently as possible and to access community activities and facilities. To be involved with the HomeFirst program, the person must be eligible under either the IDPS or the Disability Services Act for support funded by DHS’s Disability Services.

ISIS Primary Care—ABI program
This program is for adults with ABI living in the Western Metropolitan area. It aims to maximise people’s self-sufficiency and link them into community services and activities, through a range of approaches including community development, information provision, secondary consultation, case management and flexible care packages.

Melbourne City Mission
Among its many services this 150 year old statewide service provides paediatric secondary consultancy, respite care for teenagers, training for young adults, accommodation, support for people with acquired brain injury, case management, volunteer friends, etc

Queen Elizabeth Centre
This Centre, in Ballarat, is part of the Grampians Regional Health Service and provides short and long term rehabilitation services to people with acquired brain injury.

Royal Talbot Rehabilitation Centre
Royal Talbot is a campus of the Austin and Repatriation Hospital, providing assessment and treatment services to people with a dual diagnosis for mental health/ABI (CBDATS) and a range of other rehabilitation services, including home rehabilitation.

Slow to Recover
The Acquired Brain Injury, Slow to Recover (ABI STR) program, delivered by Southern Health, provides rehabilitation support throughout Victoria for highly dependent persons with ABI and their families who are not in receipt of compensation. It delivers individually-targeted slow-stream rehabilitation services to people living in the community or in residential care. People eligible for the ABI STR program have complex and long-term needs. They must have been injured within the previous two years.

Turning Point
Turning Point provides treatment and support services delivery and research, education and training in the area of alcohol and drugs. ABI is one area of Turning Point’s service delivery.
4.2 Information sources

In spite of your knowledge of ABI as a result of this training and on the job experience, it is very likely that in the future you will need to locate information about particular aspects of ABI. This information might be used to assist you in your work, or to help people with ABI and their families or carers.

The Knowledge Base section of the CD–ROM or intranet resource provides a Search engine that you can use to find information on the CD–ROM/intranet or on the World Wide Web. Please use the Knowledge Base as your ‘first port of call’ when you are seeking information.

Information on ABI is available from a wide range of sources. Here is a sample of resources that contain accurate information about ABI, often in a plain-language, user-friendly format. These sources take a number of forms, such as pamphlets, booklets, web pages and videos. This overview will help you to find what you’re looking for should you need more information about ABI.

Published resources

Many agencies have published resources such as booklets, pamphlets and information kits available for purchase at reasonable prices. For example, Headway Victoria has produced a series of 11 pamphlets about ABI called ‘Changed Lives’. Headway also has summaries of each module available in community languages. Arbias has the ‘Looking Forward’ package available for sale, as well as 20 information leaflets covering different aspects of ABI. Arbias has developed the ‘Our Health, Our Way’ information kit for Kooris, including a video and six posters painted by Koori artists.

These resources are often available to download from organisations’ websites. For example, the Brain Foundation website has ‘Growing Up with ABI: A Guide for Parents’ and a ‘Stroke Pack’ available in Word, PDF and html formats.

Some ABI organisations have in-house libraries that are open to the public. Generally, visits to the libraries are by appointment. Headway’s library is open by appointment—Monday to Friday, 9am to 5pm. The Epilepsy Foundation of Victoria also has a library with many titles relating to brain injury. Again, this library is open by appointment, but there is also an online searchable database. You can search the Epilepsy Foundation’s library catalogue at www.epinet.org.au.
Internet resources

Many agencies provide online resources through their websites. The websites themselves can also be very useful sources of information, about ABI, services available and those provided by other agencies.

Using general search engines like Google and Alta Vista or more specifically targeted engines like Info Xchange Australia—http://www.infoxchange.net.au—you can locate organisations for people with ABI in Victoria, Australia and in other countries.

Disability Online is provided in the Knowledge Base a Victorian government website that publishes fact sheets on a wide range of topics related to disability. The Knowledge Base links you directly to the URL.

Video

Video resources can be a useful source of information, particularly for people whose ABI makes reading difficult. Check the libraries of agencies like Headway Victoria and the Epilepsy Foundation for resources in non-print formats. Arbias has produced a video about ARBI. The support group Bear in Mind also has a video resource, called ‘Remember Me’.

Other resources

You can find resources relating to ABI in TAFE and university libraries, such as books, journal articles and information kits. These sources may be more specific and complex than the sources outlined above, and be less suitable for a wide audience or for people with ABI.

Another source of information providing insight into the nature of ABI is the speakers’ bureau run by Bear In Mind. They have a pool of people with ABI who are available to give public presentations to raise awareness about ABI.

Keep an eye out for training programs and workshops related to ABI, which you can do to update and upgrade your skills and knowledge.

Activity 11

With other members of your group (or on your own) conduct a Treasure Hunt around the websites in the Knowledge Base.

Identify THREE sites that you found informative and share them with someone else, briefly explaining the purpose, advantages and limitations of each one.

OR

Write a short review (500 to 600 words) of a website with information on ABI, commenting on its good features and what might be added (or deleted) to improve it. Discuss your review with your supervisor and/or place it in your folio for future assessment purposes.
4.3 Matching needs to services

Features of multiple and complex cases

Since January 2003, the Department of Human Services has been undertaking a project to develop and implement strategies to respond to people with extremely complex needs. The Introduction of the report notes:

*Over the past few years here have been concerns raised by service providers, clinicians carers, the Office of the Public Advocate, police, magistrates and others regarding the difficulty in providing services to a group of people who have multiple and complex needs. These individuals often include adolescents and adults who may experience various combinations of mental illness, intellectual disability, acquired brain injury, physical disability, behavioural difficulties, social isolation, family dysfunction, and alcohol or other substance abuse.*

The Report identified over 200 people in Victoria who may become involved in a wide range of services without clearly established case management and funding responsibilities. There has been a tendency in some areas of service to avoid responsibility for these complex cases, claiming that the services are not mandated, funded or equipped to deal with individuals who may need a highly tailored service response to assist them in managing their complex needs.

You can download a copy of the Complex Needs reports from the DHS website.

Knowledge Base

28

The Victorian Government has responded to this situation with legislation passed in 2003, as follows.

**Human Services (Complex Needs) Act 2003**

The purpose of this Act is to establish necessary and appropriate powers for a new approach to planning and service delivery for some of Victoria's most vulnerable community members. This is a group of approximately 220 people, aged 16 years and over, with a range of multiple and extremely complex needs which health and welfare services, as well as a range of emergency services, struggle to meet.

---

10 Department of Human Services (2003), *Responding to people with multiple and complex needs project*, p 5
This Act provides for a new specialist time-limited intervention that aims to:

- Stabilise housing, health, social connection and safety issues
- Provide a platform for long term engagement in the service system
- Pursue planned and consistent therapeutic goals for each client.

The Act will facilitate the delivery of welfare, health, mental health, disability, drug and alcohol services, and housing and support services on a voluntary basis to eligible people by:

- Establishing a Multiple and Complex Needs Panel
- Providing for the establishment of a referral process and specialised assessment service
- Outlining the assessment and care planning process
- Providing express authority for disclosure of relevant personal and health information by involved service providers
- Providing for clients to be notified of information disclosure and procedures of the Panel
- Establishing a process for clients to communicate their refusal to participate
- Providing appropriate safeguards for privacy of client information and management and monitoring of clients.

The following activity presents you with the last of our case study vignettes, designed to challenge your lateral thinking ability—and your patience!—to explore possible solutions for someone with multiple and complex needs. This would be a good case to discuss with a supervisor or a colleague.

**Activity 12**

You are the case worker for Moira, a thirty-two year old woman who has been dependent to varying degrees on a range of substances—amphetamine, heroin, benzodiazepines and alcohol—for ten years. Moira is separated (but not divorced) from her husband Geoff and had custody of their daughter Maxine (now five) until the Child Protection agency successfully applied for a twelve month order from the Children’s Court for Maxine to be placed in foster care. The order specified that for Moira to regain custody she needs to maintain sobriety and demonstrate her ability to manage her own affairs. There will be a review of her case in six months.

Your task will be to work with Moira over the next six months with the goal of re-establishing sufficient control and capability for her to apply for custody of Maxine and to have the Child Protection order suspended or set aside.
Networking

ABI service providers and other interested agencies join together in the Victorian Coalition of ABI Service Providers (VCASP), which meets every three months. VCASP provides a networking forum for its members and advises government and relevant organisations on the service needs of people with ABI and their families. Networks of ABI agencies and others meet in each region across Victoria, linked to VCASP and statewide agencies through representatives at each meeting.

Regional ABI Networks operate in each of Victoria’s nine regions. Contact details for each network are available from DHS’s Disability Services Regional Intake, Access and Response Service.
4.4 Towards re-integration

Home and family

The State Disability Plan makes it clear that the care and rehabilitation of people with ABI need to be directed towards the ultimate goal of enabling people to live as independently as possible with their own family and community and social networks.

A recent research paper by John Lord and Peggy Hutchison notes that there is a worldwide paradigm shift in the disability field away from institutionalised services and professional control ‘towards an emphasis on self-determination and community involvement’.\(^{11}\) The authors gathered research findings from ten projects in three countries as a basis for their affirmation of ‘the need for a well thought out framework for consumer-driven, individualised disability supports and funding.’\(^{12}\) The carer’s role is re-defined, according to this model, as one of facilitator-broker whose task it is to support individuals and families as they take the ‘tough decisions’ about their future.

Most service providers acknowledge the importance of family support structures and the role they may play in rehabilitation and building capability in the person with an ABI.

For a short list of family-oriented services, go to this Knowledge Base address. It includes contact details for the Commonwealth Carer Resource Centres, which are part of the Carers Association in each State and Territory.

Work and community

Most programs delivering services to people with an acquired brain injury aim to re-integrate the person into their community. This might involve support to develop the skills of the person with ABI so that they can access community facilities such as health care, banks and recreation.

For some people with ABI, joining the workforce is an important step in the process of re-integration. Working can significantly contribute to an individual’s sense of


\(^{12}\) Ibid., p 84
independence, self-worth and contribution to the community. People with ABI will often require specialised support in order to achieve their goal of entering the workforce. It is still the case, however, that many people with ABI will never enter or re-enter the workforce.

Some people will want to return to their previous job, while others will want to go in a different direction following their ABI. Some people with ABI wanting to join the workforce might never have worked before. The Commonwealth Rehabilitation Service (CRS Australia) has published an ABI Kit on its website\(^\text{13}\) that describes the professionals that a person with ABI would meet during a rehabilitation program. The site also offers ways for families to manage on reduced finances, together with lots of other information relating to ABI.

During an ABI assessment, the rehabilitation team collects information about the person’s previous level of education and previous work experience, their areas of interest and skills and so on. The team also assesses the individual characteristics that might have been affected by their acquired brain injury, such as motivation, stamina, efficiency and communication skills.

Some of the difficulties likely to be experienced by people with ABI re-entering the workforce are as follows.

- The job seems less satisfying
- The job seems beneath the person’s abilities
- The responsibility or tasks are too demanding
- The person may have trouble controlling their behaviour, getting used to the routine, getting to work on time
- There can be difficulties getting along with other workers who don’t understand the nature of the person’s ABI.

The person with ABI should be made aware of these common problems experienced by others who have re-entered the workforce. Support needs to be available to the person with ABI throughout the process of entering the workforce and adjusting to a new routine.

### Carer education and support

People caring for individuals with ABI often play a vital role in rehabilitation and recovery. Carers have their own unique needs and as you have learned, a person with ABI’s carers and family members need to be included in the process of individualised planning and support.

> **Caring is an act of giving whether by choice or through circumstances. For most people it is much easier to give than to receive and this may be especially so for carers who, through their caring role, give a good deal of themselves.**\(^\text{14}\)

---

There are a range of resources specifically catering to carers and their need for education and support. Many of the information sources outlined above, produced by organisations like Headway Victoria or Arbias, are targeted at carers.

The Brain Foundation has a free four-week ‘Carer Education and Support Program’—click the Knowledge Base for details on how to join—and an Education and Self-Advocacy Program for parents and carers. This Knowledge Base address also gives you access to Carers Australia, a site with valuable advice on supporting carers in the workplace.

There are also programs that help carers and families of people with ABI to access respite options. Care Connect runs regional respite programs for people caring for and living in the same household as a person with ABI or other intellectual or physical disabilities. The program gives carers and family members the opportunity of a short-term break from the role of primary care giver. Support groups for families and professional carers are also available through organisations such as the Brain Foundation Victoria and Headway Victoria.

Activity

Conduct a search for programs that are designed to assist carers, whether they are workers or family members, with skills that enable them to work with the personal difficulties that often arise when offering support to families.

In the space provided, list any resources you found particularly useful and discuss them with a co-worker or someone else in your learning program.

___________________________________________________________________
___________________________________________________________________
___________________________________________________________________
___________________________________________________________________
4.5  Towards best practice

The Victorian Standards for Disability Services are the minimum operating requirements for government and funded non-government disability service providers in Victoria. These standards have been developed from the National Standards for Disability Services, to which Victoria is a signatory. Nine service standards are defined:

Standard 1: Service Access
Standard 2: Individual Needs
Standard 3: Decision-Making and Choice
Standard 4: Privacy, Dignity and Confidentiality
Standard 5: Participation and Integration
Standard 6: Valued Status
Standard 7: Complaints and Disputes
Standard 8: Service Management
Standard 9: Freedom from Abuse and Neglect

The Knowledge Base provides excerpts from the Disability Services Self-Assessment Package, which you might want to consider as a possible model for adaptation to your own workplace. The Package includes guidelines for consumers, as well as carers and managers, to assess the quality of service delivery.

You can also view a Power Point presentation entitled ‘Developing a contextually responsive model of service delivery’.

This Knowledge Base address also provides a pdf copy of the Victorian Standards for Disability Services.

Sources used for this topic

- Western Metropolitan Region Acquired Brain Injury Case Management Referral Pathways for Adults
- CRS ABI Kit
- Disability Services Quality Self-Assessment Package
The developers of this learning program would welcome your suggestions for additions or improvements to the Knowledge Base for inclusion in later editions of *Getting your head around ABI*. 
Bibliography

Monographs and journals


- Department of Human Services, Victoria (2003), *Responding to people with Multiple and complex needs project: Client profile and case studies report*, DHS: Melbourne


**Videos**

The following glossary of terms has been selected from Powell, T. (1994), *Head injury: a practical guide*, Winslow Press: Nottingham and are used with the kind permission of Headway National Injuries Association Limited, UK. The Glossary is not intended as a comprehensive list of terms relevant to acquired brain injury. Headway Victoria has further ABI glossaries and information in its library.

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acalculia</td>
<td>Inability to perform simple arithmetical functions</td>
</tr>
<tr>
<td>Acuity</td>
<td>Sharpness of quality of sensation</td>
</tr>
<tr>
<td>Ageusia</td>
<td>Loss of the sense of taste</td>
</tr>
<tr>
<td>Agnosia</td>
<td>Failure to recognise familiar objects and know the meaning or significance of things</td>
</tr>
<tr>
<td>Agraphia</td>
<td>Loss of the ability to write</td>
</tr>
<tr>
<td>Amblyopi</td>
<td>Blindness</td>
</tr>
<tr>
<td>Amnesia</td>
<td>Partial or total loss of the ability to remember things which have been done or experienced (see Post-traumatic amnesia and Retrograde amnesia)</td>
</tr>
<tr>
<td>Aneurism</td>
<td>A balloon-like deformity in the wall of a blood vessel—may eventually burst, causing haemorrhage</td>
</tr>
<tr>
<td>Anosmia</td>
<td>Failure to smell</td>
</tr>
<tr>
<td>Anoxia</td>
<td>Lack of oxygen supply to brain cells</td>
</tr>
<tr>
<td>Anti-convulsant</td>
<td>Medication used to decrease the possibility of a seizure (e.g. Dilantin, Phenobarbital, Mysoline, Tegretol)</td>
</tr>
<tr>
<td>Term</td>
<td>Definition</td>
</tr>
<tr>
<td>--------------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Aphasia</td>
<td>Reduction of the ability to communicate with others through the use of language. Receptive aphasia is not understanding the language of others. Expressive aphasia is a reduction in the ability to use language, for example naming and making mistakes in word usage.</td>
</tr>
<tr>
<td>Apraxia</td>
<td>Inability to plan and perform purposeful movements while still having the ability to move and be aware of movement</td>
</tr>
<tr>
<td>Ataxia</td>
<td>Unsteadiness of movement; muscular uncoordination when voluntary movements are attempted</td>
</tr>
<tr>
<td>Behaviour modification</td>
<td>A form of therapy using the principle of learning, aimed at changing behaviour by altering the rewards and consequences of that behaviour</td>
</tr>
<tr>
<td>Brain plasticity</td>
<td>The ability of intact brain cells to take over functions of damaged cells; plasticity diminishes as we get older</td>
</tr>
<tr>
<td>Brain stem or Mid-brain</td>
<td>A bundle of nerve tissues below the main hemisphere at the top of the spinal cord. Controls body functions such as consciousness, wakefulness and breathing.</td>
</tr>
<tr>
<td>Burr hole</td>
<td>A hole drilled in the skull</td>
</tr>
<tr>
<td>Cerebellum</td>
<td>The portion of the brain which helps coordinate movement. Injury may result in ataxia.</td>
</tr>
<tr>
<td>Cerebro-spinal fluid (CSF)</td>
<td>The clear, colourless liquid in the spaces inside and around the brain and spinal cord</td>
</tr>
<tr>
<td>Cerebrum</td>
<td>The large walnut-like part of the brain, divided into two hemispheres (right and left) and different areas called lobes (frontal, temporal, parietal, occipital)</td>
</tr>
<tr>
<td>Coma</td>
<td>State of unconsciousness, the depth of which can be measured by the Glasgow Coma Scale, allowing a grading of the comas by observation of eye opening, limb movements and speech</td>
</tr>
<tr>
<td>Term</td>
<td>Definition</td>
</tr>
<tr>
<td>------</td>
<td>------------</td>
</tr>
<tr>
<td>Concrete thinking</td>
<td>A style of thinking in which the individual sees each situation as unique and is unable to generalise from the similarities between situations</td>
</tr>
<tr>
<td>Concussion</td>
<td>Unconsciousness after a blow to the head</td>
</tr>
<tr>
<td>Confabulation</td>
<td>Verbalisations about people, places or events with no basis in reality</td>
</tr>
<tr>
<td>Contra coup</td>
<td>Bruising of the brain tissue on the opposite side to where the blow was struck</td>
</tr>
<tr>
<td>Contusion</td>
<td>A bruise cause by a blow with a blunt object</td>
</tr>
<tr>
<td>Craniotomy</td>
<td>Operation to open the skull. Usually involves cutting a trap-door in the bone of the skull exactly over the blood clot and then washing the clot away. The bone is then put back into place and heals firmly, usually after three to four weeks.</td>
</tr>
<tr>
<td>Cranium</td>
<td>The bony skull (intra-cranial—inside the skull)</td>
</tr>
<tr>
<td>CT scan</td>
<td>Computerised Axial Tomography (CAT for short). A large doughnut-shaped machine which is actually an x-ray camera that can take pictures of a person’s brain in slices. Because it is able, photographically, to ‘peel away’ layers of tissue, it can pinpoint problem areas, especially bruises and blood accumulation, and can determine if surgery is needed.</td>
</tr>
<tr>
<td>Dementia</td>
<td>Generally impaired thinking, damaged intellectual functioning</td>
</tr>
<tr>
<td>Diplopia</td>
<td>Double vision</td>
</tr>
<tr>
<td>Disinhibition</td>
<td>Difficulty in controlling urges and impulses to speak, act or show emotion</td>
</tr>
<tr>
<td>Dysarthria</td>
<td>Difficulty with articulation and pronunciation of words, due to slowness, weakness or uncoordination of tone of muscles</td>
</tr>
<tr>
<td>Dyslexia</td>
<td>Difficulty in reading and spelling</td>
</tr>
<tr>
<td>Term</td>
<td>Description</td>
</tr>
<tr>
<td>----------------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Dysphagia</td>
<td>Difficulty in swallowing</td>
</tr>
<tr>
<td>Dysphasia</td>
<td>(Same as Aphasia)</td>
</tr>
<tr>
<td>Dyspraxia</td>
<td>(Same as Apraxia)</td>
</tr>
<tr>
<td>Edema</td>
<td>Swelling of the brain</td>
</tr>
<tr>
<td>EEG (Electroencephalogram)</td>
<td>Electrodes attached to the scalp measure the electrical activity (waves) in the brain and show the results, either on graph paper or on a screen. If someone has a moderate or severe head injury, it is likely to show an abnormal brain wave pattern or an irregular brain wave speed.</td>
</tr>
<tr>
<td>Embolism</td>
<td>Sudden blockage of an artery by a clot</td>
</tr>
<tr>
<td>Emotional lability</td>
<td>Rapid and drastic changes in emotional state (laughing, crying, anger) that are inappropriate.</td>
</tr>
<tr>
<td>Frontal lobe</td>
<td>The part of each cerebral hemisphere primarily concerned with planning and organising, attention and the control and regulation of behaviour and emotion</td>
</tr>
<tr>
<td>Haematoma</td>
<td>Blood clot. When the brain is bruised it may bleed. The collection of this blood into ‘pools’ or ‘clots’ is known as haematoma.</td>
</tr>
<tr>
<td>Haemorrhage</td>
<td>Blood loss; bleeding</td>
</tr>
<tr>
<td>Hemianopia</td>
<td>Loss of one side of the field of vision</td>
</tr>
<tr>
<td>Hemiplegia</td>
<td>Paralysis of one side of the body</td>
</tr>
<tr>
<td>Hydrocephalus</td>
<td>Accumulation of cerebrospinal fluid within the brain, sometimes at high pressure, causing expansion of the ventricles and possible injury to the brain</td>
</tr>
<tr>
<td>Hypothalamus</td>
<td>A nerve centre deep in the diencephalon area which controls the autonomic nervous system, food intake, sexual rhythms, emotions and memory.</td>
</tr>
<tr>
<td>Term</td>
<td>Definition</td>
</tr>
<tr>
<td>-----------------------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Hypoxia</td>
<td>Diminished availability of oxygen to body tissues.</td>
</tr>
<tr>
<td>Infarct</td>
<td>An area where brain cells have died as a result of a loss of blood supply</td>
</tr>
<tr>
<td>Intracranial pressure (ICP)</td>
<td>The pressure inside the skull</td>
</tr>
<tr>
<td>Limbic system</td>
<td>A group of cortical structures connected to the hypothalamus, governing memory, emotions and basic drives, including sex drive</td>
</tr>
<tr>
<td>MRI (Magnetic resonance imaging)</td>
<td>The latest diagnostic device combines computer technology and physics. The MRI uses radio frequency and a magnet to chart electrical charges created in the brain. It then converts them into computerised, highly detailed pictures of the brain. MRIs can display both specific and general nerve damage.</td>
</tr>
<tr>
<td>Neuron</td>
<td>A nerve cell</td>
</tr>
<tr>
<td>Occipital lobe</td>
<td>The part of each cerebral hemisphere primarily concerned with perception and interpretation of visual information</td>
</tr>
<tr>
<td>Oedema</td>
<td>Excess fluid in tissues, causing swelling</td>
</tr>
<tr>
<td>Open head injury</td>
<td>An injury where there is a penetration of the scalp and skull through to brain tissue</td>
</tr>
<tr>
<td>Paralysis</td>
<td>Loss of the ability of the muscles to contract</td>
</tr>
<tr>
<td>Parietal lobe</td>
<td>The part of each cerebral hemisphere primarily concerned with the perception and interpretation of sensation and movement</td>
</tr>
<tr>
<td>Perseveration</td>
<td>Involuntary prolonged repetition of words or actions</td>
</tr>
<tr>
<td>Persistent vegetative state</td>
<td>A long-standing condition in which the patient utters no words and does not follow commands or make any response that is meaningful</td>
</tr>
<tr>
<td>Term</td>
<td>Definition</td>
</tr>
<tr>
<td>-------------------------------------------</td>
<td>------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Post-concussion syndrome</td>
<td>A group of symptoms occurring after mild head injury that may persist for days, weeks or months</td>
</tr>
<tr>
<td>Post traumatic amnesia (PTA)</td>
<td>Inability to remember continuous events, after a blow to the head causes an alteration of consciousness, even when the patient is apparently awake</td>
</tr>
<tr>
<td>Retrograde amnesia</td>
<td>Inability to remember events that happened for a period before a blow to the head.</td>
</tr>
<tr>
<td>Shunt</td>
<td>(Ventriculovenous shunt) A device to remove excess fluid or divert blood. Basically it is a U-shaped piece of plastic tube with a valve, which opens at pressure, which can be inserted between an artery and a vein, bypassing the capillary network</td>
</tr>
<tr>
<td>Spastic</td>
<td>Having stiffness or weakness of the limbs, from loss of higher nervous functioning</td>
</tr>
<tr>
<td>Spinal cord</td>
<td>The extension of the central nervous system from the brain-stem lodged within the spine; contains long neural pathways to and from the brain</td>
</tr>
<tr>
<td>Temporal lobe</td>
<td>The part of each cerebral hemisphere concerned with sound and language interpretation, and important in memory function</td>
</tr>
<tr>
<td>Tracheotomy</td>
<td>A small operation, usually with a local anaesthetic, carried out if there is an obstruction to the airways. The windpipe is opened through an incision in the neck just below the Adam’s apple, and a plastic tube threaded in to facilitate the passage of air and the evacuation of secretions.</td>
</tr>
<tr>
<td>Traumatic Brain Injury (TBI)</td>
<td>Damage to the brain and/or brain stem due to mechanical injury. Most domestic causes are vehicle accidents, followed by domestic and industrial accidents, sports injuries and assaults.</td>
</tr>
<tr>
<td>Ventricle</td>
<td>A fluid-filled cavity in the brain</td>
</tr>
<tr>
<td>X-ray</td>
<td>Ordinary x-rays show the bone of the skull. They are useful for ascertaining whether there has been a fracture to the skull or whether any fragments of bone have been pushed into the brain.</td>
</tr>
</tbody>
</table>