MEDICAL REGULATIONS

Medical regulations for the Premier League and Football League are contained within the handbooks of those competitions and within the Youth Development Rules. Regulations for leagues in the National League System are contained within the Standardised Rules .

CROWD DOCTORS

With effect from 1998/1999 all Doctors employed as "Crowd Doctors" must have successfully undertaken the two one-day Football Association courses in Immediate Medical Care or Pre-Hospital Care, or equivalent. From 1998/1999 onwards, all new appointees are expected to possess the Diploma in Immediate Medical Care or its equivalent.

HEAD INJURIES

All Clubs shall ensure that any player in a league match having left the field with a head injury shall not be allowed to resume playing or training without the clearance of a qualified medical practitioner. The same provision shall apply where a head injury is sustained in training.

Management of Head Injuries in Association Football

A head injury is a potentially serious injury which can lead, in a small number of cases, to significant complications. No head injury can be assumed to be trivial.

At the beginning of each season each individual club's medical team should assemble to discuss head injury management pathways and protocols. This will include confirmation of referral specialists, and their predicted availability throughout forthcoming season. It is essential to organise a clear management care pathway in order to ensure that the recovery period is managed at all stages.

Primary Training

All pitchside medical staff will have evidence of satisfactory completion of an approved training course for the emergency management of the injured player, and subsequent re-validation where appropriate.

At all times during play there must be such a person at pitchside.

Equipment

This will be in accordance with the FA requirements. A copy of concussion management guidelines and pathways together with the concussion assessment tools(SCAT 2) should be immediately available in the medical room. This will also contain contact details of nearest appropriate medical facility for onward transfer if required and head injury instruction cards.

Scalp Injuries

The bleeding scalp wound mandates removal of the player from the field of play whilst the wound is assessed and treated. Full assessment will include examination to detect possible concussive symptomatology and/or neurological deficits. The use of surgical gloves is recommended at all times. The wound should be thoroughly cleaned, inspected and closed. Tissue loss is an indication for transfer to the closest appropriate medical facility. After treatment the wound should preferably be covered with a sterile dressing. If there are no other considerations the player may return to the field of play. A clean replacement jersey may be required and all blood must be cleaned from surrounding skin.

The medical attendant will be responsible for full documentation of the episode and make suitable arrangements for checking tetanus status, wound review, suture removal and, where deemed appropriate, prescription of antibiotics. Complex facial lacerations will require urgent specialist opinion.

Head Injury and Concussion

Suspected Concussive Injury

Concussion can occur without evidence of either loss of consciousness or actual trauma to the head. Any player exhibiting an otherwise unexplained deterioration in playing ability must be regarded as a suspected concussive injury and managed accordingly.

Head Injury and altered conscious Level

Any player remaining immobile and unresponsive to verbal commands following a head injury will be regarded as being unconscious and treated in accordance with established principles for extrication and management of the unconscious player.

Other presentations that mandate immediate hospital referral include concussive convulsions, C.S.F. leak, focal neurological signs, and clinical suspicion of skull fracture.

A player may suffer a transient alteration of conscious level following a head injury. Under these circumstances, "transient" is best defined as the period of time between the injury and the arrival of the medical attendant at the player's side. On-pitch assessment will include Maddocks questions as well as demonstration of conjugate gaze, "normal" visual acuity and full visual fields to confrontation. The player will only be allowed to resume play if asymptomatic and with normal co-ordination. The medical attendant should alert the coaching staff and the player closely observed for any deterioration in playing ability.

If a deficit is observed the player must be immediately removed from the field of play and regarded as suffering from a concussive head injury.

Sideline treatment/assessment is permitted within the rules of the game. Two attendants should accompany the player to the sideline. Initial treatment consists of observation and fluid replacement. When it is clear that the player is fully orientated, and visual assessment is satisfactory, provocation exercising should be attempted. The player should demonstrate satisfactory timing and asymptomatic response to short sprinting episodes, followed by a series of squats/sit-ups without any accompanying dizziness, disorientation or loss of balance. Normal co-ordination should be demonstrated throughout. If the player remains asymptomatic throughout these observations and exercises, return to the field of play is allowed.

If the player suffers a second such episode during the same game, the player must be removed from the field and treated as suffering from a concussive injury.

When a player has been removed from play due to concussive symptomatology, the episode must be fully documented (including oxygen usage) by the medical attendant and this will include the use of tools such as SCAT 2 at one hour post-injury. Medical documentation will include the precise examination details that enabled the decision–making process allowing the player to return home with accompanying responsible adult rather than referral to the closest appropriate medical facility.

The concussed player must not drive home and must be accompanied by a responsible adult at all times. A head injury instruction card, containing all necessary contact telephone numbers, will be issued to the accompanying adult.

Return to Play

It is recognised that the majority of players will recover from an episode of concussion and resume playing within a 7-10 day timeframe. Each player must, however, be treated as an individual and on a "symptom" rather than "time" led basis.

A period of total physical and cognitive rest, usually of no less than a full 24 hours, will be followed by a programme of carefully monitored increasing physical activity culminating in sport-specific non-contact training manoeuvres. The sequence would thus be rest, light aerobic exercise, sport-specific exercise, non-contact training drills, full contact practice, return to play. Progress though the programme will be dictated by the player remaining symptom-free. Prior to the resumption of contact training, the player must be symptom

free and reviewed by the club medical officer. If progress to this stage has been within the expected time frame, formal neuropsychological testing is not mandatory but mental status observation is required. Computerised programmes are often useful in the player for whom English is not the first language as well as the fact that these tools can be easily applied by the club medical officer.

Neuropsychological Testing

There are a number of commercially available computerised neuropsychological testing programmes. These are particularly useful in the assessment of the concussed player for whom English is not the first language. Their usefulness is reduced if baseline (i.e. pre-injury) testing has not been performed. It is also recognised that some players satisfactorily resume playing but do not return to their original baseline scores.

Formal neuropsychological testing, whether pen-and-paper or computerised, can only be undertaken in the otherwise asymptomatic individual and does not exclude the requirement for medical assessment prior to the resumption of contact training.

Formal computerised systems might enable both the player and coaching staff, as well as the medical attendant, to identify relatively minor continuing impaired reaction times in an otherwise fully recovered footballer.

Computerised systems are also useful as an additional screening tool for off-the-pitch episodes (e.g. minor fall in a hotel room during away travel) to ascertain that the (otherwise medically satisfactory) player remains at or above neuropsychological baseline.

RED FLAGS

In the emergency situation access to the nearest appropriate medical facility will be as dictated on the head injury instruction card provided at the time of the injury.

Any concerns regarding player status mandate referral to a neurological specialist. For prolonged symptomatology (e.g.severe headache not settling with simple analgesics and total rest) referral to a neurological specialist with a specific sports related interest is indicated.

Symptomatology that would indicate a neurological referral include:

Repeated concussive episodes with progressively less impact force or increasing recovery periods, age less than 18, and concomitant psychoactive medication. Note that anticoagulant therapy is an indication for hospital admission in minor head injuries..

In those referred to the neurologist, return to play will subsequently be dictated by that specialist. It is recommended that each club identify a suitable specialist who can also advise with respect to neuropsychological and neuroradiological specialist referral where appropriate.

Any player treated for a concussive episode must undertake formal neuropsychological assessment prior to the commencement of each subsequent season as a continual screening test. This is best managed with a computerised system.

SCAT 2 FORM

The SCAT 2 (Sport Concussion Assessment Tool-2) is a form which helps you to understand what effects a head injury might have, and how to judge whether the condition of the player is improving or worsening with time as, in practice, subtle changes can be hard to detect. If there is any deterioration in a player's condition, help should be sought immediately.

On page 4, there is a concussion injury advice 'tear-off' that should be given to the player, and filled out as required. A player who has sustained a head injury should be accompanied if allowed home, and the person with the player should hold the 'tear-off' from the end of the SCAT 2 form, and follow the guidance thereon.

SCAT2

Sport Concussion Assessment Tool 2

Name ______________________

Sport/team ______________________

Date/time of injury ______________________

Date/time of assessment ______________________

Age __________ Gender ☐ M ☐ F

Years of education completed ______________________

Examiner ______________________

What is the SCAT2?[1]

This tool represents a standardized method of evaluating injured athletes for concussion and can be used in athletes aged from 10 years and older. It supersedes the original SCAT published in 2005[2]. This tool also enables the calculation of the Standardized Assessment of Concussion (SAC)[3,4] score and the Maddocks questions[5] for sideline concussion assessment.

Instructions for using the SCAT2

The SCAT2 is designed for the use of medical and health professionals. Preseason baseline testing with the SCAT2 can be helpful for interpreting post-injury test scores. Words in Italics throughout the SCAT2 are the instructions given to the athlete by the tester.

This tool may be freely copied for distribtion to individuals, teams, groups and organizations.

What is a concussion?

A concussion is a disturbance in brain function caused by a direct or indirect force to the head. It results in a variety of non-specific symptoms (like those listed below) and often does not involve loss of consciousness. Concussion should be suspected in the presence of **any one or more** of the following:

- Symptoms (such as headache), or
- Physical signs (such as unsteadiness), or
- Impaired brain function (e.g. confusion) or
- Abnormal behaviour.

Any athlete with a suspected concussion should be REMOVED FROM PLAY, medically assessed, monitored for deterioration (i.e., should not be left alone) and should not drive a motor vehicle.

Symptom Evaluation

How do you feel?

You should score yourself on the following symptoms, based on how you feel now.

	none	mild		moderate		severe	
Headache	0	1	2	3	4	5	6
"Pressure in head"	0	1	2	3	4	5	6
Neck Pain	0	1	2	3	4	5	6
Nausea or vomiting	0	1	2	3	4	5	6
Dizziness	0	1	2	3	4	5	6
Blurred vision	0	1	2	3	4	5	6
Balance problems	0	1	2	3	4	5	6
Sensitivity to light	0	1	2	3	4	5	6
Sensitivity to noise	0	1	2	3	4	5	6
Feeling slowed down	0	1	2	3	4	5	6
Feeling like "in a fog"	0	1	2	3	4	5	6
"Don't feel right"	0	1	2	3	4	5	6
Difficulty concentrating	0	1	2	3	4	5	6
Difficulty remembering	0	1	2	3	4	5	6
Fatigue or low energy	0	1	2	3	4	5	6
Confusion	0	1	2	3	4	5	6
Drowsiness	0	1	2	3	4	5	6
Trouble falling asleep (if applicable)	0	1	2	3	4	5	6
More emotional	0	1	2	3	4	5	6
Irritability	0	1	2	3	4	5	6
Sadness	0	1	2	3	4	5	6
Nervous or Anxious	0	1	2	3	4	5	6

Total number of symptoms (Maximum possible 22) ☐

Symptom severity score ☐
(Add all scores in table, maximum possible: 22 x 6 = 132)

Do the symptoms get worse with physical activity? ☐ Y ☐ N
Do the symptoms get worse with mental activity? ☐ Y ☐ N

Overall rating

If you know the athlete well prior to the injury, how different is the athlete acting compared to his / her usual self? Please circle one response.

no different	very different	unsure

Cognitive & Physical Evaluation

1 Symptom score (from page 1)

22 **minus** number of symptoms — of 22

2 Physical signs score

Was there loss of consciousness or unresponsiveness? Y N
If yes, how long? ______ minutes
Was there a balance problem/unsteadiness? Y N

Physical signs score (1 point for each negative response) — of 2

3 Glasgow coma scale (GCS)

Best eye response (E)

No eye opening	1
Eye opening in response to pain	2
Eye opening to speech	3
Eyes opening spontaneously	4

Best verbal response (V)

No verbal response	1
Incomprehensible sounds	2
Inappropriate words	3
Confused	4
Oriented	5

Best motor response (M)

No motor response	1
Extension to pain	2
Abnormal flexion to pain	3
Flexion/Withdrawal to pain	4
Localizes to pain	5
Obeys commands	6

Glasgow Coma score (E + V + M) — of 15

GCS should be recorded for all athletes in case of subsequent deterioration.

4 Sideline Assessment – Maddocks Score

"I am going to ask you a few questions, please listen carefully and give your best effort."

Modified Maddocks questions (1 point for each correct answer)

At what venue are we at today?	0	1
Which half is it now?	0	1
Who scored last in this match?	0	1
What team did you play last week/game?	0	1
Did your team win the last game?	0	1

Maddocks score — of 5

Maddocks score is validated for sideline diagnosis of concussion only and is not included in SCAT 2 summary score for serial testing.

5 Cognitive assessment

Standardized Assessment of Concussion (SAC)

Orientation (1 point for each correct answer)

What month is it?	0	1
What is the date today?	0	1
What is the day of the week?	0	1
What year is it?	0	1
What time is it right now? (within 1 hour)	0	1

Orientation score — of 5

Immediate memory

"I am going to test your memory. I will read you a list of words and when I am done, repeat back as many words as you can remember, in any order."

Trials 2 & 3:
"I am going to repeat the same list again. Repeat back as many words as you can remember in any order, even if you said the word before."

Complete all 3 trials regardless of score on trial 1 & 2. Read the words at a rate of one per second. Score 1 pt. for each correct response. Total score equals sum across all 3 trials. Do not inform the athlete that delayed recall will be tested.

List	Trial 1	Trial 2	Trial 3	Alternative word list		
elbow	0 1	0 1	0 1	candle	baby	finger
apple	0 1	0 1	0 1	paper	monkey	penny
carpet	0 1	0 1	0 1	sugar	perfume	blanket
saddle	0 1	0 1	0 1	sandwich	sunset	lemon
bubble	0 1	0 1	0 1	wagon	iron	insect
Total						

Immediate memory score — of 15

Concentration

Digits Backward:
"I am going to read you a string of numbers and when I am done, you repeat them back to me backwards, in reverse order of how I read them to you. For example, if I say 7-1-9, you would say 9-1-7."

If correct, go to next string length. If incorrect, read trial 2. One point possible for each string length. Stop after incorrect on both trials. The digits should be read at the rate of one per second.

			Alternative digit lists		
4-9-3	0	1	6-2-9	5-2-6	4-1-5
3-8-1-4	0	1	3-2-7-9	1-7-9-5	4-9-6-8
6-2-9-7-1	0	1	1-5-2-8-6	3-8-5-2-7	6-1-8-4-3
7-1-8-4-6-2	0	1	5-3-9-1-4-8	8-3-1-9-6-4	7-2-4-8-5-6

Months in Reverse Order:
"Now tell me the months of the year in reverse order. Start with the last month and go backward. So you'll say December, November ... Go ahead"

1 pt. for entire sequence correct

Dec-Nov-Oct-Sept-Aug-Jul-Jun-May-Apr-Mar-Feb-Jan — 0 1

Concentration score — of 5

[1] This tool has been developed by a group of international experts at the 3rd International Consensus meeting on Concussion in Sport held in Zurich, Switzerland in November 2008. The full details of the conference outcomes and the authors of the tool are published in British Journal of Sports Medicine, 2009, volume 43, supplement 1.
The outcome paper will also be simultaneously co-published in the May 2009 issues of Clinical Journal of Sports Medicine, Physical Medicine & Rehabilitation, Journal of Athletic Training, Journal of Clinical Neuroscience, Journal of Science & Medicine in Sport, Neurosurgery, Scandinavian Journal of Science & Medicine in Sport and the Journal of Clinical Sports Medicine.

[2] McCrory P et al. Summary and agreement statement of the 2nd International Conference on Concussion in Sport, Prague 2004. British Journal of Sports Medicine. 2005; 39: 196-204

[3] McCrea M. Standardized mental status testing of acute concussion. Clinical Journal of Sports Medicine. 2001; 11: 176-181

[4] McCrea M, Randolph C, Kelly J. Standardized Assessment of Concussion: Manual for administration, scoring and interpretation. Waukesha, Wisconsin, USA.

[5] Maddocks, DL; Dicker, GD; Saling, MM. The assessment of orientation following concussion in athletes. Clin J Sport Med. 1995;5(1):32–3

[6] Guskiewicz KM. Assessment of postural stability following sport-related concussion. Current Sports Medicine Reports. 2003; 2: 24-30

6 Balance examination

This balance testing is based on a modified version of the Balance Error Scoring System (BESS)[6]. A stopwatch or watch with a second hand is required for this testing.

Balance testing

"I am now going to test your balance. Please take your shoes off, roll up your pant legs above ankle (if applicable), and remove any ankle taping (if applicable). This test will consist of three twenty second tests with different stances."

(a) Double leg stance:
"The first stance is standing with your feet together with your hands on your hips and with your eyes closed. You should try to maintain stability in that position for 20 seconds. I will be counting the number of times you move out of this position. I will start timing when you are set and have closed your eyes."

(b) Single leg stance:
"If you were to kick a ball, which foot would you use? [This will be the dominant foot] *Now stand on your non-dominant foot. The dominant leg should be held in approximately 30 degrees of hip flexion and 45 degrees of knee flexion. Again, you should try to maintain stability for 20 seconds with your hands on your hips and your eyes closed. I will be counting the number of times you move out of this position. If you stumble out of this position, open your eyes and return to the start position and continue balancing. I will start timing when you are set and have closed your eyes."*

(c) Tandem stance:
"Now stand heel-to-toe with your ***non-dominant foot*** *in back. Your weight should be evenly distributed across both feet. Again, you should try to maintain stability for 20 seconds with your hands on your hips and your eyes closed. I will be counting the number of times you move out of this position. If you stumble out of this position, open your eyes and return to the start position and continue balancing. I will start timing when you are set and have closed your eyes."*

Balance testing – types of errors

1. Hands lifted off iliac crest
2. Opening eyes
3. Step, stumble, or fall
4. Moving hip into > 30 degrees abduction
5. Lifting forefoot or heel
6. Remaining out of test position > 5 sec

Each of the 20-second trials is scored by counting the errors, or deviations from the proper stance, accumulated by the athlete. The examiner will begin counting errors only after the individual has assumed the proper start position. **The modified BESS is calculated by adding one error point for each error during the three 20-second tests. The maximum total number of errors for any single condition is 10.** If a athlete commits multiple errors simultaneously, only one error is recorded but the athlete should quickly return to the testing position, and counting should resume once subject is set. Subjects that are unable to maintain the testing procedure for a minimum of **five seconds** at the start are assigned the highest possible score, ten, for that testing condition.

Which foot was tested: ☐ Left ☐ Right
(i.e. which is the **non-dominant** foot)

Condition	**Total errors**
Double Leg Stance (feet together)	of 10
Single leg stance (non-dominant foot)	of 10
Tandem stance (non-dominant foot at back)	of 10
Balance examination score (30 **minus** total errors)	of 30

7 Coordination examination

Upper limb coordination

Finger-to-nose (FTN) task: *"I am going to test your coordination now. Please sit comfortably on the chair with your eyes open and your arm (either right or left) outstretched (shoulder flexed to 90 degrees and elbow and fingers extended). When I give a start signal, I would like you to perform five successive finger to nose repetitions using your index finger to touch the tip of the nose as quickly and as accurately as possible."*

Which arm was tested: ☐ Left ☐ Right

Scoring: 5 correct repetitions in < 4 seconds = 1

Note for testers: Athletes fail the test if they do not touch their nose, do not fully extend their elbow or do not perform five repetitions. Failure should be scored as 0.

Coordination score of 1

8 Cognitive assessment

Standardized Assessment of Concussion (SAC)

Delayed recall

"Do you remember that list of words I read a few times earlier? Tell me as many words from the list as you can remember in any order."

Circle each word correctly recalled. Total score equals number of words recalled.

List	Alternative word list		
elbow	candle	baby	finger
apple	paper	monkey	penny
carpet	sugar	perfume	blanket
saddle	sandwich	sunset	lemon
bubble	wagon	iron	insect

Delayed recall score of 5

Overall score

Test domain	Score
Symptom score	of 22
Physical signs score	of 2
Glasgow Coma score (E + V + M)	of 15
Balance examination score	of 30
Coordination score	of 1
Subtotal	**of 70**
Orientation score	of 5
Immediate memory score	of 5
Concentration score	of 15
Delayed recall score	of 5
SAC subtotal	**of 30**
SCAT2 total	**of 100**
Maddocks Score	**of 5**

Definitive normative data for a SCAT2 "cut-off" score is not available at this time and will be developed in prospective studies. Embedded within the SCAT2 is the SAC score that can be utilized separately in concussion management. The scoring system also takes on particular clinical significance during serial assessment where it can be used to document either a decline or an improvement in neurological functioning.

Scoring data from the SCAT2 or SAC should not be used as a stand alone method to diagnose concussion, measure recovery or make decisions about an athlete's readiness to return to competition after concussion.

Athlete Information

Any athlete suspected of having a concussion should be removed from play, and then seek medical evaluation.

Signs to watch for

Problems could arise over the first 24-48 hours. You should not be left alone and must go to a hospital at once if you:

- Have a headache that gets worse
- Are very drowsy or can't be awakened (woken up)
- Can't recognize people or places
- Have repeated vomiting
- Behave unusually or seem confused; are very irritable
- Have seizures (arms and legs jerk uncontrollably)
- Have weak or numb arms or legs
- Are unsteady on your feet; have slurred speech

Remember, it is better to be safe.
Consult your doctor after a suspected concussion.

Return to play

Athletes should not be returned to play the same day of injury. When returning athletes to play, they should follow a stepwise symptom-limited program, with stages of progression. For example:

1. rest until asymptomatic (physical and mental rest)
2. light aerobic exercise (e.g. stationary cycle)
3. sport-specific exercise
4. non-contact training drills (start light resistance training)
5. full contact training after medical clearance
6. return to competition (game play)

There should be approximately 24 hours (or longer) for each stage and the athlete should return to stage 1 if symptoms recur. Resistance training should only be added in the later stages.
Medical clearance should be given before return to play.

Tool	Test domain	Time	Score			
		Date tested				
		Days post injury				
SCAT2	Symptom score					
	Physical signs score					
	Glasgow Coma score (E + V + M)					
	Balance examination score					
	Coordination score					
SAC	Orientation score					
	Immediate memory score					
	Concentration score					
	Delayed recall score					
	SAC Score					
Total	**SCAT2**					
Symptom severity score (max possible 132)						
Return to play			☐ Y ☐ N	☐ Y ☐ N	☐ Y ☐ N	☐ Y ☐ N

Additional comments

Concussion injury advice (To be given to concussed athlete)

This patient has received an injury to the head. A careful medical examination has been carried out and no sign of any serious complications has been found. It is expected that recovery will be rapid, but the patient will need monitoring for a further period by a responsible adult. Your treating physician will provide guidance as to this timeframe.

If you notice any change in behaviour, vomiting, dizziness, worsening headache, double vision or excessive drowsiness, please telephone the clinic or the nearest hospital emergency department immediately.

Other important points:

- **Rest and avoid strenuous activity for at least 24 hours**
- **No alcohol**
- **No sleeping tablets**
- **Use paracetamol or codeine for headache. Do not use aspirin or anti-inflammatory medication**
- **Do not drive until medically cleared**
- **Do not train or play sport until medically cleared**

Clinic phone number

Patient's name

Date/time of injury

Date/time of medical review

Treating physician

Contact details or stamp

THE LOCATION AND ADDRESSES OF NEUROSURGICAL UNITS IN ENGLAND AND WALES PROVIDING NEUROSURGICAL SERVICES AND NEUROSURGICAL CONSULTATIONS IN CASES OF HEAD INJURY

Department of Neurosurgery
Newcastle General Hospital, Newcastle upon Tyne

Department of Neurosurgery
Middlesbrough General Hospital. Middlesbrough

Department of Neurosurgery
Leeds General Infirmary, Leeds LS1 3EX

Department of Neurosurgery
Hull Royal Infirmary, Hull

Department of Neurosurgery
Preston Royal Infirmary, Preston

Department of Neurosurgery
North Manchester General Hospital, Crumpsall, Manchester

Department of Neurosurgery
Hope Hospital, Salford, Lancs

Department of Neurosurgery
Manchester Royal Infirmary, Oxford Road, Manchester

Department of Neurosurgery
Walton Hospital, Liverpool

Department of Neurosurgery
Royal Hallamshire Hospital, Sheffield

Department of Neurosurgery
Queen's Medical Centre, Nottingham

Department of Neurosurgery
North Staffordshire Royal Infirmary, Stoke on Trent

Department of Neurosurgery
Queen Elizabeth Hospital, Birmingham

Department of Neurosurgery
Midland Centre for Neurosurgery, Smethwick, West Midlands

Department of Neurosurgery
Walsgrave Hospital, Coventry

Department of Neurosurgery
The Radcliffe Infirmary, Oxford

Department of Neurosurgery
Frenchay Hospital, Bristol

Department of Neurosurgery
Heath University Hospital, Cardiff

Department of Neurosurgery
Morriston Hospital, Swansea

Department of Neurosurgery
Derriford Hospital, Derriford Road, Plymouth

Department of Neurosurgery
Southampton General Hospital, Southampton

Department of Neurosurgery
Addenbrooke's Hospital, Cambridge

Department of Neurosurgery
St Bartholomew's Hospital, London

Department of Neurosurgery
Atkinson Morley Hospital, Wimbledon, London

Department of Neurosurgery
Queen's Square, London

Department of Neurosurgery
Brook General Hospital, Shooters Hill, London SF18 4LW

Department of Neurosurgery
Oldchurch Hospital, Romford, Essex

Department of Neurosurgery
Charing Cross Hospital, Fulham Palace Road, London W6 SRF

Department of Neurosurgery
Hurstwood Park Neurological Centre, Haywards Heath, West Sussex RHl7 75T

APPENDED ALSO IS A LIST OF NEUROLOGICAL SURGEONS WITH A SPECIAL INTEREST IN HEAD INJURY WHO MAY BE AVAILABLE FOR A SECOND OPINION OR SPECIAL CONSULTATION

Mr R. Myles Gibson
35 Park Lane, Leeds, West Yorkshire LSS 2EY
Telephone: 01532 661998

Mr P. T. van Hille
Leeds General Infirmary, Great George Street, Leeds, West Yorkshire LSl 3EX
Telephone: 01532 432799

Professor Edward Hitebeock
Midland Centre for Neurosurgery and Neurology
Holly Lane, Smethwick, Warley, West Midlands B67 7JX
Telephone: 0121 558 3232

Mr Brian Cummings
Frenchay Hospital, Bristol BSI6 ILE
Telephone: 01272 565656

Mr Peter Richards
Charing Cross Hospital, Fulham Palace Road, London W6 8RF
Telephone: 0171 748 2040

Mr John Firth
Queen's Medical Centre, Nottingham

Mr Peter Crawford
Newcastle General Hospital Westgate Road, Newcastle upon Tyne NE4 6BE
Telephone: 0191 273 8811