

# PHASE 1

Current

New

Notes

## CORE: COMMON CONTENT MODULE

The Common Core module has been updated so that it is an exact copy of the common core part of the Core surgery programme. This is to enhance career flexibility and to ensure neurosurgical trainees are prepared for the MRCS examination

Phase 1 is designed to be completed in an indicative 2 years whereas initial phase training was designed to be completed in 3 years. Some of the expected knowledge and technical skills levels are therefore marginally lower than they were previously.

|   | ST3                 | ST6 | ST8 | Phase 1             | Phase 2 | Phase 3 |
|---|---------------------|-----|-----|---------------------|---------|---------|
| <b>Basic Sciences</b>   |                     |     |     |                     |         |         |
| <b>OBJECTIVE</b>  |                     |     |     |                     |         |         |
| To acquire and demonstrate a knowledge of the basic science which underpins the practice of surgery |                     |     |     |                     |         |         |
| <b>KNOWLEDGE</b>  | No Levels specified |     |     | No Levels specified |         |         |
| Applied anatomy   |                     |     |     |                     |         |         |
| Physiology  |                     |     |     |                     |         |         |
| Pharmacology  |                     |     |     |                     |         |         |
| Microbiology  |                     |     |     |                     |         |         |
| Medical Physics<br>Medical Statistics   |                     |     |     |                     |         |         |

|   | ST3                 | ST6 | ST8 | Phase 1             | Phase 2 | Phase 3 |
|---|---------------------|-----|-----|---------------------|---------|---------|
| <b>Common Surgical Conditions renamed as The Clinical Method</b>  |                     |     |     |                     |         |         |
| <b>OBJECTIVE</b>  |                     |     |     |                     |         |         |
| To demonstrate the knowledge and clinical skill necessary to assess and investigate a patient presenting to a surgical team |                     |     |     |                     |         |         |
| <b>KNOWLEDGE</b>  | No Levels specified |     |     | No Levels specified |         |         |
| <b>CLINICAL SKILLS</b>  |                     |     |     |                     |         |         |
| Reference to other relevant syllabus items  |                     |     |     |                     |         |         |
| Index conditions  |                     |     |     |                     |         |         |
| Organ systems   |                     |     |     |                     |         |         |

|  | ST3    | ST6 | ST8 | Phase 1 | Phase 2 | Phase 3 |
|--|--------|-----|-----|---------|---------|---------|
| <b>Peri-operative care</b>   |        |     |     |         |         |         |
| <b>OBJECTIVE</b>   |        |     |     |         |         |         |
| To assess and manage preoperative risk and prepare a patient for theatre, to conduct safe surgery in the operating theatre environment and to provide medical care for the patient in the post-operative period. |        |     |     |         |         |         |
| <b>KNOWLEDGE</b>   |        |     |     |         |         |         |
| <b>CLINICAL SKILLS</b>   |        | 3   |     |         |         |         |
| <b>TECHNICAL SKILLS and PROCEDURES</b>   | 2 to 4 |     |     | 1 to 3  |         |         |

|  | ST3    | ST6 | ST8 | Phase 1 | Phase 2 | Phase 3 |
|--|--------|-----|-----|---------|---------|---------|
| <b>Basic Surgical skills</b>   |        |     |     |         |         |         |
| <b>OBJECTIVE</b>   |        |     |     |         |         |         |
| To acquire and develop throughout the programme those generic technical skills common to all or many areas of surgical practice. |        |     |     |         |         |         |
| <b>KNOWLEDGE</b>   |        |     |     |         |         |         |
| <b>CLINICAL SKILLS</b>   |        | 4   |     |         |         |         |
| <b>TECHNICAL SKILLS and PROCEDURES</b>   | 3 to 4 |     |     | 2 to 4  |         |         |

|   | ST3 | ST6 | ST8 | Phase 1 | Phase 2 | Phase 3 |
|---|-----|-----|-----|---------|---------|---------|
| <b>Critical care</b>  |     |     |     |         |         |         |
| <b>OBJECTIVE</b>  |     |     |     |         |         |         |
| To demonstrate the knowledge and clinical and technical skills necessary to contribute to the management of critically unwell patients suffering from traumatic injuries or sepsis. |     |     |     |         |         |         |
| <b>KNOWLEDGE</b>  |     |     |     |         |         |         |
| <b>CLINICAL SKILLS</b>  |     | 4   |     |         |         |         |
| <b>TECHNICAL SKILLS and PROCEDURES</b>  |     | 4   |     | 2       |         |         |

|  | ST3 | ST6 | ST8 | Phase 1             | Phase 2 | Phase 3 |
|--|-----|-----|-----|---------------------|---------|---------|
| <b>Surgical Care of the paediatric patient</b>   |     |     |     |                     |         |         |
| <b>OBJECTIVE</b>   |     |     |     |                     |         |         |
| To assess and manage children with surgical problems, understanding the similarities and differences from adult surgical patients, within the appropriate legal and safeguarding frameworks. |     |     |     |                     |         |         |
| <b>KNOWLEDGE</b>   |     |     |     | No Levels specified |         |         |
| <b>CLINICAL SKILLS</b>   |     | 3   |     |                     |         |         |

|  | ST3 | ST6 | ST8 | Phase 1 | Phase 2 | Phase 3 |
|--|-----|-----|-----|---------|---------|---------|
| <b>Management of the dying patient</b> |     |     |     |         |         |         |
| <b>OBJECTIVE</b>                       |     |     |     |         |         |         |

|  |   |  |  |                     |  |  |
|--|---|--|--|---------------------|--|--|
| To assess and manage preoperative risk and prepare a patient for theatre, to conduct safe surgery in the operating theatre environment and to provide medical care for the patient in the post-operative period. |   |  |  |                     |  |  |
| KNOWLEDGE  |   |  |  | No Levels specified |  |  |
| CLINICAL SKILLS  | 3 |  |  |                     |  |  |

|  | ST3    | ST6 | ST8 | Phase 1             | Phase 2 | Phase 3 |
|--|--------|-----|-----|---------------------|---------|---------|
| <b>Health Promotion</b>  |        |     |     |                     |         |         |
| <b>OBJECTIVE</b>   |        |     |     |                     |         |         |
| To assess and manage preoperative risk and prepare a patient for theatre, to conduct safe surgery in the operating theatre environment and to provide medical care for the patient in the post-operative period. |        |     |     |                     |         |         |
| KNOWLEDGE  |        |     |     | No Levels specified |         |         |
| CLINICAL SKILLS  | 3 to 4 |     |     |                     |         |         |
| REFERENCE TO OTHER RELEVANT SYLLABUS   | 2 to 4 |     |     |                     |         |         |

**This section is unchanged except that the knowledge levels have been removed from all sections, anatomy content has remained the same but the five modules have been brought together as have two of the neurophysiology modules.**

## CORE NEUROSCIENCES

|   | ST3 | ST6 | ST8 | Phase 1             | Phase 2 | Phase 3 |
|---|-----|-----|-----|---------------------|---------|---------|
| <b>Neuroanatomy</b>                                     |     |     |     |                     |         |         |
| <b>OBJECTIVE</b>  |     |     |     |                     |         |         |
| To understand neuroanatomy and embryology               |     |     |     |                     |         |         |
| KNOWLEDGE   |     |     |     | No Levels specified |         |         |
| Embryology and Maldevelopment                           | 4   |     |     |                     |         |         |
| Anatomy of the Skull                                    | 4   |     |     |                     |         |         |
| Anatomy of the Brain                                    | 4   |     |     |                     |         |         |
| Anatomy of the Spine                                    | 4   |     |     |                     |         |         |
| Anatomy of the Autonomic and Peripheral Nervous Systems | 4   |     |     |                     |         |         |

|   | ST3 | ST6 | ST8 | Phase 1             | Phase 2 | Phase 3 |
|---|-----|-----|-----|---------------------|---------|---------|
| <b>Neurophysiology</b>  |     |     |     |                     |         |         |
| <b>OBJECTIVE</b>  |     |     |     |                     |         |         |
| To understand the functional organisation and integration of the central nervous system |     |     |     |                     |         |         |
| KNOWLEDGE   |     |     |     | No Levels specified |         |         |
| Functional Neurophysiology  | 4   |     |     |                     |         |         |
| Pathophysiology of intracranial disorders   | 4   |     |     |                     |         |         |

|  | ST3 | ST6 | ST8 | Phase 1             | Phase 2 | Phase 3 |
|--|-----|-----|-----|---------------------|---------|---------|
| <b>Neuropharmacology</b>   |     |     |     |                     |         |         |
| <b>OBJECTIVE</b>   |     |     |     |                     |         |         |
| To understand the principles of neuropharmacology, ischaemia, neo-plasia and trauma affecting the nervous system |     |     |     |                     |         |         |
| KNOWLEDGE  |     |     |     | No Levels specified |         |         |
| Principles of Neuropharmacology  | 4   |     |     |                     |         |         |

|  | ST3 | ST6 | ST8 | Phase 1             | Phase 2 | Phase 3 |
|--|-----|-----|-----|---------------------|---------|---------|
| <b>Neuropathology</b>  |     |     |     |                     |         |         |
| <b>OBJECTIVE</b>   |     |     |     |                     |         |         |
| To understand the neuropathology of infection, inflammation, ischaemia, neo-plasia and trauma affecting the nervous system |     |     |     |                     |         |         |
| KNOWLEDGE  |     |     |     | No Levels specified |         |         |
| Principles of Neuropathology   | 4   |     |     |                     |         |         |

|   | ST3 | ST6 | ST8 | Phase 1             | Phase 2 | Phase 3 |
|---|-----|-----|-----|---------------------|---------|---------|
| <b>Neuroradiology</b>   |     |     |     |                     |         |         |
| <b>OBJECTIVE</b>  |     |     |     |                     |         |         |
| To understand the principles of neuroradiological imaging of the structure and function of the nervous system |     |     |     |                     |         |         |
| KNOWLEDGE   |     |     |     | No Levels specified |         |         |
| Principles of Neuroradiology  | 4   |     |     |                     |         |         |

|  | ST3 | ST6 | ST8 | Phase 1             | Phase 2 | Phase 3 |
|--|-----|-----|-----|---------------------|---------|---------|
| <b>Clinical Neurophysiology</b>                                |     |     |     |                     |         |         |
| <b>OBJECTIVE</b>   |     |     |     |                     |         |         |
| To understand the basic principles of clinical neurophysiology |     |     |     |                     |         |         |
| KNOWLEDGE  |     |     |     | No Levels specified |         |         |
| Principles of Neurophysiology                                  | 4   |     |     |                     |         |         |

|   | ST3 | ST6 | ST8 | Phase 1 | Phase 2 | Phase 3 |
|---|-----|-----|-----|---------|---------|---------|
| <b>Neuropsychology</b>  |     |     |     |         |         |         |
| <b>OBJECTIVE</b>  |     |     |     |         |         |         |
| To understand the principles of neuropsychological assessment, application of the Mental Health Act |     |     |     |         |         |         |

|                               |   |  |  |                     |
|-------------------------------|---|--|--|---------------------|
| KNOWLEDGE                     |   |  |  | No Levels specified |
| Principles of Neuropsychology | 3 |  |  |                     |

|   |     |     |     |         |         |         |
|---|-----|-----|-----|---------|---------|---------|
|   | ST3 | ST6 | ST8 | Phase 1 | Phase 2 | Phase 3 |
| <b>Neurorehabilitation</b>                                  |     |     |     |         |         |         |
| OBJECTIVE   |     |     |     |         |         |         |
| To understand the principles of neurological rehabilitation |     |     |     |         |         |         |

|   |   |  |  |                     |
|---|---|--|--|---------------------|
| KNOWLEDGE                                 |   |  |  | No Levels specified |
| Principles of Neurological Rehabilitation | 3 |  |  |                     |

|  |     |     |     |         |         |         |
|--|-----|-----|-----|---------|---------|---------|
|  | ST3 | ST6 | ST8 | Phase 1 | Phase 2 | Phase 3 |
| <b>Medical Ethics</b>  |     |     |     |         |         |         |
| OBJECTIVE  |     |     |     |         |         |         |
| To understand the ethical issues that commonly arise in the management of patients with neurological disorders |     |     |     |         |         |         |

|                              |       |  |  |                     |
|------------------------------|-------|--|--|---------------------|
| KNOWLEDGE                    |       |  |  | No Levels specified |
| Principles of Medical Ethics | 3 (4) |  |  |                     |

|   |     |     |     |         |         |         |
|---|-----|-----|-----|---------|---------|---------|
|   | ST3 | ST6 | ST8 | Phase 1 | Phase 2 | Phase 3 |
| <b>Neurogenetics</b>  |     |     |     |         |         |         |
| OBJECTIVE   |     |     |     |         |         |         |
| To understand the principles of neurogenetic studies and their relevance to clinical practice |     |     |     |         |         |         |

|                             |   |  |  |                     |
|-----------------------------|---|--|--|---------------------|
| KNOWLEDGE                   |   |  |  | No Levels specified |
| Principles of Neurogenetics | 3 |  |  |                     |

**This section is unchanged except that Impaired consciousness has been moved to critical conditions, lumbar puncture has been moved to index procedures and knowledge / skill levels have been removed**

**COMMON NEUROLOGICAL PRESENTATIONS**

|                                     |     |     |     |         |         |         |
|-------------------------------------|-----|-----|-----|---------|---------|---------|
|                                     | ST3 | ST6 | ST8 | Phase 1 | Phase 2 | Phase 3 |
| <b>Headache - acute and chronic</b> |     |     |     |         |         |         |
| OBJECTIVE                           |     |     |     |         |         |         |
| and chronic headache                |     |     |     |         |         |         |

|                                    |   |  |  |                     |
|------------------------------------|---|--|--|---------------------|
| KNOWLEDGE                          | 4 |  |  | No Levels specified |
| CLINICAL SKILLS                    | 4 |  |  |                     |
| TECHNICAL SKILLS (lumbar puncture) | 4 |  |  |                     |

Lumbar puncture removed from this section (it is an index procedure - see below)

|                               |     |     |     |         |         |         |
|-------------------------------|-----|-----|-----|---------|---------|---------|
|                               | ST3 | ST6 | ST8 | Phase 1 | Phase 2 | Phase 3 |
| <b>Weakness and Paralysis</b> |     |     |     |         |         |         |
| OBJECTIVE                     |     |     |     |         |         |         |
| weakness and paralysis        |     |     |     |         |         |         |

|                 |   |  |  |                     |
|-----------------|---|--|--|---------------------|
| KNOWLEDGE       | 4 |  |  | No Levels specified |
| CLINICAL SKILLS | 4 |  |  |                     |

|  |     |     |     |         |         |         |
|--|-----|-----|-----|---------|---------|---------|
|  | ST3 | ST6 | ST8 | Phase 1 | Phase 2 | Phase 3 |
| <b>Dizziness, unsteadiness and falls</b> |     |     |     |         |         |         |
| OBJECTIVE                                |     |     |     |         |         |         |
| dizziness, unsteadiness and falls        |     |     |     |         |         |         |

|                 |   |  |  |                     |
|-----------------|---|--|--|---------------------|
| KNOWLEDGE       | 4 |  |  | No Levels specified |
| CLINICAL SKILLS | 4 |  |  |                     |

|                              |     |     |     |         |         |         |
|------------------------------|-----|-----|-----|---------|---------|---------|
|                              | ST3 | ST6 | ST8 | Phase 1 | Phase 2 | Phase 3 |
| <b>Pain and sensory loss</b> |     |     |     |         |         |         |
| OBJECTIVE                    |     |     |     |         |         |         |
| sensory loss                 |     |     |     |         |         |         |

|                 |   |  |  |                     |
|-----------------|---|--|--|---------------------|
| KNOWLEDGE       | 4 |  |  | No Levels specified |
| CLINICAL SKILLS | 4 |  |  |                     |

|                         |     |     |     |         |         |         |
|-------------------------|-----|-----|-----|---------|---------|---------|
|                         | ST3 | ST6 | ST8 | Phase 1 | Phase 2 | Phase 3 |
| <b>Hearing disorder</b> |     |     |     |         |         |         |
| OBJECTIVE               |     |     |     |         |         |         |
| loss                    |     |     |     |         |         |         |

|                 |   |  |  |                     |
|-----------------|---|--|--|---------------------|
| KNOWLEDGE       | 4 |  |  | No Levels specified |
| CLINICAL SKILLS | 4 |  |  |                     |

|                        |     |     |     |         |         |         |
|------------------------|-----|-----|-----|---------|---------|---------|
|                        | ST3 | ST6 | ST8 | Phase 1 | Phase 2 | Phase 3 |
| <b>Visual disorder</b> |     |     |     |         |         |         |
| OBJECTIVE              |     |     |     |         |         |         |
| disorders              |     |     |     |         |         |         |

|                 |   |  |  |                     |
|-----------------|---|--|--|---------------------|
| KNOWLEDGE       | 4 |  |  | No Levels specified |
| CLINICAL SKILLS | 4 |  |  |                     |

|  |     |     |     |         |         |         |
|--|-----|-----|-----|---------|---------|---------|
|  | ST3 | ST6 | ST8 | Phase 1 | Phase 2 | Phase 3 |
| <b>Language and speech disturbance</b> |     |     |     |         |         |         |

|                                     |   |  |  |                     |  |  |
|-------------------------------------|---|--|--|---------------------|--|--|
| OBJECTIVE                           |   |  |  |                     |  |  |
| disturbances of language and speech |   |  |  |                     |  |  |
| KNOWLEDGE                           | 4 |  |  | No Levels specified |  |  |
| CLINICAL SKILLS                     | 4 |  |  |                     |  |  |

|                             |     |     |     |                     |         |         |
|-----------------------------|-----|-----|-----|---------------------|---------|---------|
|                             | ST3 | ST6 | ST8 | Phase 1             | Phase 2 | Phase 3 |
| <b>Swallowing disorders</b> |     |     |     |                     |         |         |
| OBJECTIVE                   |     |     |     |                     |         |         |
| swallowing disorders        |     |     |     |                     |         |         |
| KNOWLEDGE                   | 4   |     |     | No Levels specified |         |         |
| CLINICAL SKILLS             | 4   |     |     |                     |         |         |

|  |     |     |     |                     |         |         |
|--|-----|-----|-----|---------------------|---------|---------|
|  | ST3 | ST6 | ST8 | Phase 1             | Phase 2 | Phase 3 |
| <b>Disorders of sphincteric and sexual dysfunction</b> |     |     |     |                     |         |         |
| OBJECTIVE  |     |     |     |                     |         |         |
| sphincteric disorders                                  |     |     |     |                     |         |         |
| KNOWLEDGE  | 4   |     |     | No Levels specified |         |         |
| CLINICAL SKILLS  | 4   |     |     |                     |         |         |

|                          |     |     |     |                     |         |         |
|--------------------------|-----|-----|-----|---------------------|---------|---------|
|                          | ST3 | ST6 | ST8 | Phase 1             | Phase 2 | Phase 3 |
| <b>Movement disorder</b> |     |     |     |                     |         |         |
| OBJECTIVE                |     |     |     |                     |         |         |
| movement disorders       |     |     |     |                     |         |         |
| KNOWLEDGE                | 4   |     |     | No Levels specified |         |         |
| CLINICAL SKILLS          | 4   |     |     |                     |         |         |

|                                       |     |     |     |                     |         |         |
|---------------------------------------|-----|-----|-----|---------------------|---------|---------|
|                                       | ST3 | ST6 | ST8 | Phase 1             | Phase 2 | Phase 3 |
| <b>Memory and cognitive disorders</b> |     |     |     |                     |         |         |
| OBJECTIVE                             |     |     |     |                     |         |         |
| disorders of memory and cognition     |     |     |     |                     |         |         |
| KNOWLEDGE                             | 4   |     |     | No Levels specified |         |         |
| CLINICAL SKILLS                       | 4   |     |     |                     |         |         |

|                              |     |     |     |                     |         |         |
|------------------------------|-----|-----|-----|---------------------|---------|---------|
|                              | ST3 | ST6 | ST8 | Phase 1             | Phase 2 | Phase 3 |
| <b>Behavioural disorders</b> |     |     |     |                     |         |         |
| OBJECTIVE                    |     |     |     |                     |         |         |
| behavioural disorders        |     |     |     |                     |         |         |
| KNOWLEDGE                    | 4   |     |     | No Levels specified |         |         |
| CLINICAL SKILLS              | 4   |     |     |                     |         |         |

**INDEX PROCEDURES**

**Most of these index procedures have been moved from basic clinical neurosurgery - craniotomy and lumbar approach are new.**

|   |        |     |     |         |         |         |
|---|--------|-----|-----|---------|---------|---------|
|   | ST3    | ST6 | ST8 | Phase 1 | Phase 2 | Phase 3 |
| <b>Lumbar puncture and Lumbar Drain Insertion</b>                                 |        |     |     |         |         |         |
| OBJECTIVE   |        |     |     |         |         |         |
| To achieve competence in performing lumbar punctures and in-serting lumbar drains |        |     |     |         |         |         |
| KNOWLEDGE   | 3 to 4 |     |     | 4       |         |         |
| TECHNICAL SKILLS and PROCEDURE  | 4      |     |     |         |         |         |

|   |     |     |     |         |         |         |
|---|-----|-----|-----|---------|---------|---------|
|   | ST3 | ST6 | ST8 | Phase 1 | Phase 2 | Phase 3 |
| <b>Insertion of ICP monitor</b>   |     |     |     |         |         |         |
| OBJECTIVE   |     |     |     |         |         |         |
| To achieve competence in the insertion of intraparenchymal ICP monitors |     |     |     |         |         |         |
| KNOWLEDGE   | 4   |     |     | 3       |         |         |
| TECHNICAL SKILLS and PROCEDURE  | 4   |     |     |         |         |         |

|  |     |     |     |         |         |         |
|--|-----|-----|-----|---------|---------|---------|
|  | ST3 | ST6 | ST8 | Phase 1 | Phase 2 | Phase 3 |
| <b>Burr hole evacuation of chronic subdural haematoma</b>                    |     |     |     |         |         |         |
| OBJECTIVE  |     |     |     |         |         |         |
| To achieve competence in burr hole evacuation of chronic subdural haematomas |     |     |     |         |         |         |
| KNOWLEDGE  | 4   |     |     | 2       |         |         |
| TECHNICAL SKILLS and PROCEDURE   | 3   |     |     |         |         |         |

|                         |     |     |     |         |         |         |
|-------------------------|-----|-----|-----|---------|---------|---------|
|                         | ST3 | ST6 | ST8 | Phase 1 | Phase 2 | Phase 3 |
| <b>Insertion of EVD</b> |     |     |     |         |         |         |
| OBJECTIVE               |     |     |     |         |         |         |

This was previously a technical skill in hydrocephalus at this level

|   |   |  |  |   |  |
|---|---|--|--|---|--|
| To achieve competence in inserting an EVD |   |  |  |   |  |
| KNOWLEDGE                                 |   |  |  | 2 |  |
| TECHNICAL SKILLS and PROCEDURE            | 3 |  |  |   |  |

|  | ST3 | ST6 | ST8 | Phase 1 | Phase 2 | Phase 3 |
|--|-----|-----|-----|---------|---------|---------|
| <b>Craniotomy</b>                                |     |     |     |         |         |         |
| OBJECTIVE  |     |     |     |         |         |         |
| To achieve competence in performing a craniotomy |     |     |     |         |         |         |
| KNOWLEDGE  |     |     |     | 2       |         |         |
| TECHNICAL SKILLS and PROCEDURE                   |     |     |     |         |         |         |

This is an addition - it is an essential emergency skill which a day 1 phase 2 trainee needs to be able to do

|   | ST3 | ST6 | ST8 | Phase 1 | Phase 2 | Phase 3 |
|---|-----|-----|-----|---------|---------|---------|
| <b>Lumbar decompression (approach)</b>                              |     |     |     |         |         |         |
| OBJECTIVE   |     |     |     |         |         |         |
| To achieve competence in approach to decompressing the lumbar canal |     |     |     |         |         |         |
| KNOWLEDGE   |     |     |     | 2       |         |         |
| TECHNICAL SKILLS and PROCEDURE                                      |     |     |     |         |         |         |

This is an addition - it is an essential emergency skill which a day 1 phase 2 trainee needs to be able to do

## PHASE 2 & 3

Current

New

Notes

Topics

The old curriculum incorporated technical skills into the assessment of these critical conditions. The new curriculum is measured using knowledge scores not technical ability scores.

### Cranial Trauma

|  | ST3 | ST6 | ST8    | Phase 1             | Phase 2 | Phase 3 |
|--|-----|-----|--------|---------------------|---------|---------|
| <b>Early and surgical management of the head injured patient</b>                                     |     |     |        |                     |         |         |
| OBJECTIVE  |     |     |        |                     |         |         |
| To achieve competence in all aspects of the general and surgical management of head-injured patients |     |     |        |                     |         |         |
| KNOWLEDGE  |     | 4   | 4      | No Levels specified |         |         |
| CLINICAL SKILLS  |     | 4   | 4      |                     |         |         |
| TECHNICAL SKILLS and PROCEDURES  |     | 3   | 3 to 4 |                     |         |         |

General management of the head injured patient and surgical management of cranial trauma have been brought together

|   | ST3 | ST6 | ST8 | Phase 1             | Phase 2 | Phase 3 |
|---|-----|-----|-----|---------------------|---------|---------|
| <b>Neuro-intensive care and ward based care of the head-injured patient</b> |     |     |     |                     |         |         |
| OBJECTIVE   |     |     |     |                     |         |         |
| To achieve competence in the neurointensive care of head-injured patients   |     |     |     |                     |         |         |
| KNOWLEDGE   |     | 4   |     | No Levels specified |         |         |
| CLINICAL SKILLS   |     | 4   |     |                     |         |         |

|  | ST3 | ST6 | ST8 | Phase 1             | Phase 2 | Phase 3 |
|--|-----|-----|-----|---------------------|---------|---------|
| <b>Neurological rehabilitation following head injury</b>             |     |     |     |                     |         |         |
| OBJECTIVE  |     |     |     |                     |         |         |
| To understand the role of post-traumatic neurological rehabilitation |     |     |     |                     |         |         |
| KNOWLEDGE  |     | 4   |     | No Levels specified |         |         |
| CLINICAL SKILLS  |     | 4   |     |                     |         |         |

### CSF Pathologies

|   | ST3 | ST6    | ST8    | Phase 1             | Phase 2 | Phase 3 |
|---|-----|--------|--------|---------------------|---------|---------|
| <b>Hydrocephalus</b>  |     |        |        |                     |         |         |
| OBJECTIVE   |     |        |        |                     |         |         |
| To achieve competence the assessment and operative management of patients with communicating and non-communicating hydrocephalus. |     |        |        |                     |         |         |
| KNOWLEDGE   |     | 4      | 4      | No Levels specified |         |         |
| CLINICAL SKILLS   |     | 4      | 4      |                     |         |         |
| TECHNICAL SKILLS and PROCEDURES   |     | 2 to 4 | 2 to 4 |                     |         |         |

hydrocephalus

|   | ST3 | ST6 | ST8 | Phase 1             | Phase 2 | Phase 3 |
|---|-----|-----|-----|---------------------|---------|---------|
| <b>Idiopathic and Venous Intracranial Hypertension</b>  |     |     |     |                     |         |         |
| OBJECTIVE   |     |     |     |                     |         |         |
| To achieve competence the assessment and operative management of adult patients with raised intracranial pressure from venous or idiopathic causes. |     |     |     |                     |         |         |
| KNOWLEDGE   |     |     |     | No Levels specified |         |         |
| CLINICAL SKILLS   |     |     |     |                     |         |         |
| TECHNICAL SKILLS and PROCEDURES   |     |     |     |                     |         |         |

Important topic - omitted from previous curriculum

|   | ST3 | ST6 | ST8 | Phase 1             | Phase 2 | Phase 3 |
|---|-----|-----|-----|---------------------|---------|---------|
| <b>Arachnoid cysts</b>  |     |     |     |                     |         |         |
| OBJECTIVE   |     |     |     |                     |         |         |
| To achieve competence in the management of cranial and spinal arachnoid cysts |     |     |     |                     |         |         |
| KNOWLEDGE   |     |     |     | No Levels specified |         |         |
| CLINICAL SKILLS   |     |     |     |                     |         |         |
| TECHNICAL SKILLS and PROCEDURES   |     |     |     |                     |         |         |

Important topic - omitted from previous curriculum

|  | ST3 | ST6 | ST8 | Phase 1             | Phase 2 | Phase 3 |
|--|-----|-----|-----|---------------------|---------|---------|
| <b>Hind brain herniation and syringomyelia</b>   |     |     |     |                     |         |         |
| <b>OBJECTIVE</b>   |     |     |     |                     |         |         |
| To achieve competence in the management of craniocervical stenosis, hindbrain herniation and syringomyelia |     |     |     |                     |         |         |
| <b>KNOWLEDGE</b>   |     |     | 4   | No Levels specified |         |         |
| <b>CLINICAL SKILLS</b>   |     |     | 4   |                     |         |         |
| <b>TECHNICAL SKILLS and PROCEDURES</b>   |     |     | 3   |                     |         |         |

Important topic - omitted from previous curriculum

### Neuro-oncology

|  | ST3 | ST6 | ST8 | Phase 1             | Phase 2 | Phase 3 |
|--|-----|-----|-----|---------------------|---------|---------|
| <b>General Principles of Neuroncology</b>  |     |     |     |                     |         |         |
| <b>OBJECTIVE</b>   |     |     |     |                     |         |         |
| To achieve competence in the multi-disciplinary management of patients with intracranial neoplasia |     |     |     |                     |         |         |
| <b>KNOWLEDGE</b>   |     |     | 4   | No Levels specified |         |         |
| <b>CLINICAL SKILLS</b>   |     |     | 4   |                     |         |         |

|  | ST3 | ST6 | ST8 | Phase 1 | Phase 2 | Phase 3 |
|--|-----|-----|-----|---------|---------|---------|
| <b>Intrinsic tumours</b>   |     |     |     |         |         |         |
| <b>OBJECTIVE</b>   |     |     |     |         |         |         |
| To achieve competence in the operative management of intrinsic tumours |     |     |     |         |         |         |
| <b>KNOWLEDGE</b>   |     |     | 4   |         |         |         |
| <b>CLINICAL SKILLS</b>   |     |     | 4   |         |         | 4       |
| <b>TECHNICAL SKILLS and PROCEDURES</b>                                 |     |     | 3   |         |         |         |

Incorporates principles of image guided surgery

|  | ST3 | ST6 | ST8 | Phase 1             | Phase 2 | Phase 3 |
|--|-----|-----|-----|---------------------|---------|---------|
| <b>Meningiomas</b>   |     |     |     |                     |         |         |
| <b>OBJECTIVE</b>   |     |     |     |                     |         |         |
| To achieve competence in the operative management of meningiomas |     |     |     |                     |         |         |
| <b>KNOWLEDGE</b>   |     |     | 4   | No Levels specified |         |         |
| <b>CLINICAL SKILLS</b>   |     |     | 4   |                     |         |         |
| <b>TECHNICAL SKILLS and PROCEDURES</b>                           |     |     | 3   |                     |         |         |

|   | ST3 | ST6 | ST8    | Phase 1 | Phase 2 | Phase 3 |
|---|-----|-----|--------|---------|---------|---------|
| <b>Cerebellopontine angle tumours</b>   |     |     |        |         |         |         |
| <b>OBJECTIVE</b>  |     |     |        |         |         |         |
| To achieve competence in the management of patients with cerebellopontine angle tumours |     |     |        |         |         |         |
| <b>KNOWLEDGE</b>  |     |     | 3 to 4 |         |         |         |
| <b>CLINICAL SKILLS</b>  |     |     | 4      |         |         | 4       |
| <b>TECHNICAL SKILLS and PROCEDURES</b>  |     |     | 2 to 4 |         |         |         |

|   | ST3 | ST6 | ST8    | Phase 1             | Phase 2 | Phase 3 |
|---|-----|-----|--------|---------------------|---------|---------|
| <b>Sellar and suprasellar mass lesions</b>  |     |     |        |                     |         |         |
| <b>OBJECTIVE</b>  |     |     |        |                     |         |         |
| To achieve competence in transphenoidal and cranial approaches to sellar and suprasellar mass lesions |     |     |        |                     |         |         |
| <b>KNOWLEDGE</b>  |     |     | 4      | No Levels specified |         |         |
| <b>CLINICAL SKILLS</b>  |     |     | 4      |                     |         |         |
| <b>TECHNICAL SKILLS and PROCEDURES</b>  |     |     | 2 to 3 |                     |         |         |

|  | ST3 | ST6 | ST8    | Phase 1             | Phase 2 | Phase 3 |
|--|-----|-----|--------|---------------------|---------|---------|
| <b>Intraventricular and pineal region tumours</b>  |     |     |        |                     |         |         |
| <b>OBJECTIVE</b>   |     |     |        |                     |         |         |
| To achieve competence in the management of patients with pineal region and third ventricular tumours including colloid cysts |     |     |        |                     |         |         |
| <b>KNOWLEDGE</b>   |     |     | 4      | No Levels specified |         |         |
| <b>CLINICAL SKILLS</b>   |     |     | 4      |                     |         |         |
| <b>TECHNICAL SKILLS and PROCEDURES</b>   |     |     | 2 to 3 |                     |         |         |

|   | ST3 | ST6 | ST8 | Phase 1 | Phase 2 | Phase 3 |
|---|-----|-----|-----|---------|---------|---------|
| <b>Skull and skull base tumours</b>   |     |     |     |         |         |         |
| <b>OBJECTIVE</b>  |     |     |     |         |         |         |
| To achieve competence in the assessment of patients with skull and skull base lesions |     |     |     |         |         |         |

|                                 |  |  |  |        |  |  |   |
|---------------------------------|--|--|--|--------|--|--|---|
| KNOWLEDGE                       |  |  |  | 4      |  |  |   |
| CLINICAL SKILLS                 |  |  |  | 4      |  |  | 4 |
| TECHNICAL SKILLS and PROCEDURES |  |  |  | 2 to 4 |  |  |   |

|  | ST3 | ST6 | ST8 | Phase 1 | Phase 2 | Phase 3 |
|--|-----|-----|-----|---------|---------|---------|
| <b>Brainstem tumours</b>   |     |     |     |         |         |         |
| <b>OBJECTIVE</b>   |     |     |     |         |         |         |
| To achieve competence in the surgical aspects of the multidisciplinary management of patients with intrinsic brainstem tumours |     |     |     |         |         |         |
| <b>KNOWLEDGE</b>   |     |     |     |         |         |         |
| <b>CLINICAL SKILLS</b>   |     |     |     |         |         | 4       |
| <b>TECHNICAL SKILLS and PROCEDURES</b>   |     |     |     |         |         |         |

### Neurovascular

|   | ST3 | ST6 | ST8 | Phase 1             | Phase 2 | Phase 3 |
|---|-----|-----|-----|---------------------|---------|---------|
| <b>Primary Intracerebral Haemorrhage</b>  |     |     |     |                     |         |         |
| <b>OBJECTIVE</b>  |     |     |     |                     |         |         |
| To achieve competence in the operative management of space-occupying spontaneous intracerebral haematomas |     |     |     |                     |         |         |
| <b>KNOWLEDGE</b>  |     |     | 4   |                     |         |         |
| <b>CLINICAL SKILLS</b>  |     |     | 4   |                     |         |         |
| <b>TECHNICAL SKILLS and PROCEDURES</b>  |     |     | 3   | No Levels specified |         |         |

|   | ST3 | ST6 | ST8    | Phase 1 | Phase 2 | Phase 3 |
|---|-----|-----|--------|---------|---------|---------|
| <b>Aneurysmal subarachnoid haemorrhage</b>  |     |     |        |         |         |         |
| <b>OBJECTIVE</b>  |     |     |        |         |         |         |
| To achieve competence in the surgical aspects of the multi-disciplinary management of aneurysmal subarachnoid haemorrhage |     |     |        |         |         |         |
| <b>KNOWLEDGE</b>  |     |     | 4      |         |         | 4       |
| <b>CLINICAL SKILLS</b>  |     |     | 4      |         |         | 4       |
| <b>TECHNICAL SKILLS and PROCEDURES</b>  |     |     | 3 to 4 |         |         | 4       |

|  | ST3 | ST6 | ST8    | Phase 1 | Phase 2 | Phase 3 |
|--|-----|-----|--------|---------|---------|---------|
| <b>Intracranial aneurysms</b>  |     |     |        |         |         |         |
| <b>OBJECTIVE</b>   |     |     |        |         |         |         |
| To achieve competence in the surgical aspects of the multi-disciplinary management of ruptured and unruptured intracranial aneurysms |     |     |        |         |         |         |
| <b>KNOWLEDGE</b>   |     |     | 3 to 4 |         |         |         |
| <b>CLINICAL SKILLS</b>   |     |     | 4      |         |         | 4       |
| <b>TECHNICAL SKILLS and PROCEDURES</b>   |     |     | 2 to 4 |         |         |         |

|  | ST3 | ST6 | ST8    | Phase 1 | Phase 2 | Phase 3 |
|--|-----|-----|--------|---------|---------|---------|
| <b>Vascular malformations</b>  |     |     |        |         |         |         |
| <b>OBJECTIVE</b>   |     |     |        |         |         |         |
| To achieve competence in the surgical aspects of the multi-disciplinary management of vascular malformations |     |     |        |         |         |         |
| <b>KNOWLEDGE</b>   |     |     | 3 to 4 |         |         |         |
| <b>CLINICAL SKILLS</b>   |     |     | 4      |         |         | 4       |
| <b>TECHNICAL SKILLS and PROCEDURES</b>   |     |     | 2 to 3 |         |         |         |

|   | ST3 | ST6 | ST8    | Phase 1 | Phase 2 | Phase 3 |
|---|-----|-----|--------|---------|---------|---------|
| <b>Occlusive cerebrovascular disease</b>  |     |     |        |         |         |         |
| <b>OBJECTIVE</b>  |     |     |        |         |         |         |
| To achieve competence in the clinical management of occlusive cerebrovascular disease |     |     |        |         |         |         |
| <b>KNOWLEDGE</b>  |     |     | 2 to 3 |         |         |         |
| <b>CLINICAL SKILLS</b>  |     |     | 3 to 4 |         |         | 4       |
| <b>TECHNICAL SKILLS and PROCEDURES</b>  |     |     |        |         |         |         |

### CNS Infection

|   | ST3 | ST6 | ST8 | Phase 1 | Phase 2 | Phase 3 |
|---|-----|-----|-----|---------|---------|---------|
| <b>Intracerebral abscess and subdural empyema</b> |     |     |     |         |         |         |
| <b>OBJECTIVE</b>                                  |     |     |     |         |         |         |

Incorporates general microbiological principles and management of intracerebral abscess



|  |  |   |        |                     |  |  |
|--|--|---|--------|---------------------|--|--|
| To achieve competence in the management of patients with CNS infections including ventriculitis, cerebral abscess and subdural empyema |  |   |        |                     |  |  |
| KNOWLEDGE  |  | 4 | 4      | No Levels specified |  |  |
| CLINICAL SKILLS  |  | 4 | 3 to 4 |                     |  |  |
| TECHNICAL SKILLS and PROCEDURES  |  | 4 | 3 to 4 |                     |  |  |

### Spinal Trauma

|   |     |        |     |                     |         |         |
|---|-----|--------|-----|---------------------|---------|---------|
|   | ST3 | ST6    | ST8 | Phase 1             | Phase 2 | Phase 3 |
| <b>General management of the spinal injury patient</b>  |     |        |     |                     |         |         |
| OBJECTIVE   |     |        |     |                     |         |         |
| To achieve competence in all aspects of the non-operative management of spinal injury patients. |     |        |     |                     |         |         |
| KNOWLEDGE   |     | 4      |     | No Levels specified |         |         |
| CLINICAL SKILLS   |     | 4      |     |                     |         |         |
| TECHNICAL SKILLS and PROCEDURES   |     | 2 to 4 |     |                     |         |         |

|  |     |     |     |         |         |         |
|--|-----|-----|-----|---------|---------|---------|
|  | ST3 | ST6 | ST8 | Phase 1 | Phase 2 | Phase 3 |
| <b>Cervical spine fractures</b>  |     |     |     |         |         |         |
| OBJECTIVE  |     |     |     |         |         |         |
| To achieve competence in the general management of fractures of the cervical spine |     |     |     |         |         |         |
| KNOWLEDGE  |     |     | 4   |         |         | 4       |
| CLINICAL SKILLS  |     |     | 4   |         |         |         |
| TECHNICAL SKILLS and PROCEDURES  |     |     | 4   |         |         |         |

|  |     |     |     |         |         |         |
|--|-----|-----|-----|---------|---------|---------|
|  | ST3 | ST6 | ST8 | Phase 1 | Phase 2 | Phase 3 |
| <b>Thoraco-lumbar fractures</b>  |     |     |     |         |         |         |
| OBJECTIVE  |     |     |     |         |         |         |
| To achieve competence in the general management of thoracolumbar fractures |     |     |     |         |         |         |
| KNOWLEDGE  |     |     | 4   |         |         | 4       |
| CLINICAL SKILLS  |     |     | 4   |         |         |         |
| TECHNICAL SKILLS and PROCEDURES  |     |     | 2   |         |         |         |

### Spinal Oncology

|   |     |        |        |         |         |         |
|---|-----|--------|--------|---------|---------|---------|
|   | ST3 | ST6    | ST8    | Phase 1 | Phase 2 | Phase 3 |
| <b>Malignant extradural spinal tumours</b>  |     |        |        |         |         |         |
| OBJECTIVE   |     |        |        |         |         |         |
| To achieve competence in the general management of patients with malignant spinal cord compression and their surgical management. |     |        |        |         |         |         |
| KNOWLEDGE   |     | 4      | 4      |         |         | 4       |
| CLINICAL SKILLS   |     | 4      | 4      |         |         |         |
| TECHNICAL SKILLS and PROCEDURES   |     | 2 to 4 | 3 to 4 |         |         |         |

Malignant spinal cord compression and surgical management of thoraco-lumbar metastases brought together

|   |     |     |        |         |         |         |
|---|-----|-----|--------|---------|---------|---------|
|   | ST3 | ST6 | ST8    | Phase 1 | Phase 2 | Phase 3 |
| <b>Intradural extramedullary and intramedullary tumours</b>                 |     |     |        |         |         |         |
| OBJECTIVE   |     |     |        |         |         |         |
| To achieve competence in the management of patients with intradural tumours |     |     |        |         |         |         |
| KNOWLEDGE   |     |     | 4      |         |         | 4       |
| CLINICAL SKILLS   |     |     | 4      |         |         |         |
| TECHNICAL SKILLS and PROCEDURES   |     |     | 2 to 4 |         |         |         |

### Spinal Degenerative disease

|  |     |     |     |         |         |         |
|--|-----|-----|-----|---------|---------|---------|
|  | ST3 | ST6 | ST8 | Phase 1 | Phase 2 | Phase 3 |
| <b>Lumbar radiculopathies</b>  |     |     |     |         |         |         |
| OBJECTIVE  |     |     |     |         |         |         |
| To achieve competence in the surgical management of lumbar compressive radiculopathy |     |     |     |         |         |         |
| KNOWLEDGE  |     | 4   | 4   |         |         | 4       |
| CLINICAL SKILLS  |     | 4   | 4   |         |         |         |
| TECHNICAL SKILLS and PROCEDURES  |     | 3   | 4   |         |         |         |

|  |     |     |     |         |         |         |
|--|-----|-----|-----|---------|---------|---------|
|  | ST3 | ST6 | ST8 | Phase 1 | Phase 2 | Phase 3 |
|--|-----|-----|-----|---------|---------|---------|

| <b>Compressive cervical myeloradiculopathies</b>  |  |  |   |   |   |
|---|--|--|---|---|---|
| <b>OBJECTIVE</b>  |  |  |   |   |   |
| To achieve competence in the surgical management of compressive cervical myeloradiculopathies |  |  |   |   |   |
| <b>KNOWLEDGE</b>  |  |  | 4 | 4 |   |
| <b>CLINICAL SKILLS</b>  |  |  | 4 | 4 |   |
| <b>TECHNICAL SKILLS and PROCEDURES</b>  |  |  | 3 | 4 | 4 |

| <b>Rheumatoid disease</b>  | ST3 | ST6 | ST8 | Phase 1 | Phase 2 | Phase 3 |
|--|-----|-----|-----|---------|---------|---------|
| <b>OBJECTIVE</b>   |     |     |     |         |         |         |
| To understand the management of rheumatoid patients with atlanto-axial subluxation, cranial settling and related disorders |     |     |     |         |         |         |
| <b>KNOWLEDGE</b>   |     |     | 4   |         |         |         |
| <b>CLINICAL SKILLS</b>   |     |     | 4   |         |         |         |
| <b>TECHNICAL SKILLS and PROCEDURES</b>   |     |     | 3   |         |         | 4       |

### Spinal Infection

| <b>Spinal epidural abscess</b>   | ST3 | ST6 | ST8    | Phase 1             | Phase 2 | Phase 3 |
|--|-----|-----|--------|---------------------|---------|---------|
| <b>OBJECTIVE</b>   |     |     |        |                     |         |         |
| To achieve competence in the operative management of spinal epidural abscess |     |     |        |                     |         |         |
| <b>KNOWLEDGE</b>   |     |     |        |                     |         |         |
| <b>CLINICAL SKILLS</b>   |     |     |        |                     |         |         |
| <b>TECHNICAL SKILLS and PROCEDURES</b>                                       |     |     |        |                     |         |         |
|  |     |     | 4      | No Levels specified |         |         |
|  |     |     | 3 to 4 |                     |         |         |
|  |     |     | 4      |                     |         |         |

| <b>Vertebral osteomyelitis and discitis</b>   | ST3 | ST6 | ST8    | Phase 1             | Phase 2 | Phase 3 |
|---|-----|-----|--------|---------------------|---------|---------|
| <b>OBJECTIVE</b>  |     |     |        |                     |         |         |
| To achieve competence in the operative management of vertebral osteomyelitis and discitis |     |     |        |                     |         |         |
| <b>KNOWLEDGE</b>  |     |     |        |                     |         |         |
| <b>CLINICAL SKILLS</b>  |     |     |        |                     |         |         |
| <b>TECHNICAL SKILLS and PROCEDURES</b>  |     |     |        |                     |         |         |
|   |     |     | 4      | No Levels specified |         |         |
|   |     |     | 3 to 4 |                     |         |         |
|   |     |     | 2      |                     |         |         |

### Pain, Epilepsy and Functional

| <b>Movement disorders</b>  | ST3 | ST6 | ST8    | Phase 1 | Phase 2 | Phase 3 |
|--|-----|-----|--------|---------|---------|---------|
| <b>OBJECTIVE</b>   |     |     |        |         |         |         |
| To understand the management of patients with movement disorders |     |     |        |         |         |         |
| <b>KNOWLEDGE</b>   |     |     |        |         |         |         |
| <b>CLINICAL SKILLS</b>   |     |     |        |         |         |         |
| <b>TECHNICAL SKILLS and PROCEDURES</b>                           |     |     |        |         |         |         |
|  |     |     | 2 to 4 |         |         |         |
|  |     |     | 3      |         |         | 4       |

| <b>Chronic pain</b>  | ST3 | ST6 | ST8    | Phase 1 | Phase 2 | Phase 3 |
|--|-----|-----|--------|---------|---------|---------|
| <b>OBJECTIVE</b>   |     |     |        |         |         |         |
| To understand the management of patients with chronic pain syndromes |     |     |        |         |         |         |
| <b>KNOWLEDGE</b>   |     |     |        |         |         |         |
| <b>CLINICAL SKILLS</b>   |     |     |        |         |         |         |
| <b>TECHNICAL SKILLS and PROCEDURES</b>                               |     |     |        |         |         |         |
|  |     |     | 3      |         |         |         |
|  |     |     | 3 to 4 |         |         | 4       |

| <b>Trigeminal neuralgia and hemifacial spasm</b>   | ST3 | ST6 | ST8    | Phase 1 | Phase 2 | Phase 3 |
|--|-----|-----|--------|---------|---------|---------|
| <b>OBJECTIVE</b>   |     |     |        |         |         |         |
| To achieve competence in the surgical aspects of the multi-disciplinary management of patients with trigeminal neuralgia |     |     |        |         |         |         |
| <b>KNOWLEDGE</b>   |     |     |        |         |         |         |
| <b>CLINICAL SKILLS</b>   |     |     |        |         |         |         |
| <b>TECHNICAL SKILLS and PROCEDURES</b>   |     |     |        |         |         |         |
|  |     |     | 4      |         |         |         |
|  |     |     | 4      |         |         | 4       |
|  |     |     | 2 to 3 |         |         |         |

| <b>Epilepsy</b>  | ST3 | ST6 | ST8 | Phase 1 | Phase 2 | Phase 3 |
|------------------|-----|-----|-----|---------|---------|---------|
| <b>OBJECTIVE</b> |     |     |     |         |         |         |

|  |  |  |  |        |  |   |
|--|--|--|--|--------|--|---|
| To understand the management of patients with idiopathic and lesional epilepsy |  |  |  |        |  |   |
| KNOWLEDGE  |  |  |  | 3 to 4 |  |   |
| CLINICAL SKILLS  |  |  |  | 4      |  | 4 |
| TECHNICAL SKILLS and PROCEDURES  |  |  |  | 3      |  |   |

|  | ST3 | ST6 | ST8 | Phase 1 | Phase 2 | Phase 3 |
|--|-----|-----|-----|---------|---------|---------|
| <b>Spasticity</b>  |     |     |     |         |         |         |
| <b>OBJECTIVE</b>   |     |     |     |         |         |         |
| To achieve competence in the surgical aspects of the multi-disciplinary management of patients with spasticity |     |     |     |         |         |         |
| KNOWLEDGE  |     |     |     |         |         |         |
| CLINICAL SKILLS  |     |     |     |         |         | 4       |
| TECHNICAL SKILLS and PROCEDURES  |     |     |     |         |         |         |

|  | ST3 | ST6 | ST8 | Phase 1 | Phase 2 | Phase 3 |
|--|-----|-----|-----|---------|---------|---------|
| <b>Surgery for mental illness</b>  |     |     |     |         |         |         |
| <b>OBJECTIVE</b>   |     |     |     |         |         |         |
| To be familiar with current surgical treatment options for treatment resistant mental illness and in particular depression and obsessive compulsive disorder |     |     |     |         |         |         |
| KNOWLEDGE  |     |     |     |         |         |         |
| CLINICAL SKILLS  |     |     |     |         |         | 4       |
| TECHNICAL SKILLS and PROCEDURES  |     |     |     |         |         |         |

### Paediatrics

|  | ST3 | ST6 | ST8 | Phase 1 | Phase 2 | Phase 3 |
|--|-----|-----|-----|---------|---------|---------|
| <b>Paediatric head and spinal injury</b>   |     |     |     |         |         |         |
| <b>OBJECTIVE</b>   |     |     |     |         |         |         |
| To achieve competence the management of accidental and non-accidental paediatric head and spinal injuries. |     |     |     |         |         |         |
| KNOWLEDGE  |     |     |     |         |         | 4       |
| CLINICAL SKILLS  |     |     |     |         |         | 3 to 4  |
| TECHNICAL SKILLS and PROCEDURES  |     |     |     |         |         | 3 to 4  |

|   | ST3 | ST6    | ST8    | Phase 1 | Phase 2 | Phase 3 |
|---|-----|--------|--------|---------|---------|---------|
| <b>Paediatric hydrocephalus</b>   |     |        |        |         |         |         |
| <b>OBJECTIVE</b>  |     |        |        |         |         |         |
| To achieve competence in the assessment of children with hydrocephalus. To undertake emergency external ventricular drainage in children with acute hydrocephalus |     |        |        |         |         |         |
| KNOWLEDGE   |     |        | 4      |         |         | 4       |
| CLINICAL SKILLS   |     |        | 4      |         |         | 4       |
| TECHNICAL SKILLS and PROCEDURES   |     | 2 to 4 | 3 to 4 |         |         | 4       |

|  | ST3 | ST6 | ST8 | Phase 1 | Phase 2 | Phase 3 |
|--|-----|-----|-----|---------|---------|---------|
| <b>Paediatric tumours</b>  |     |     |     |         |         |         |
| <b>OBJECTIVE</b>   |     |     |     |         |         |         |
| To achieve competence in the emergency neurosurgical management of children presenting with intracranial tumours |     |     |     |         |         |         |
| KNOWLEDGE  |     |     |     |         |         |         |
| CLINICAL SKILLS  |     |     |     |         |         | 3       |
| TECHNICAL SKILLS and PROCEDURES  |     |     |     |         |         |         |

|   | ST3 | ST6 | ST8 | Phase 1 | Phase 2 | Phase 3 |
|---|-----|-----|-----|---------|---------|---------|
| <b>Paediatric intracranial vascular disorders</b>   |     |     |     |         |         |         |
| <b>OBJECTIVE</b>  |     |     |     |         |         |         |
| To achieve competence in the emergency neurosurgical management of children presenting with intracranial vascular disorders |     |     |     |         |         |         |
| KNOWLEDGE   |     |     |     |         |         | 4       |
| CLINICAL SKILLS   |     |     |     |         |         | 4       |
| TECHNICAL SKILLS and PROCEDURES   |     |     |     |         |         | 4       |

|                                    | ST3 | ST6 | ST8 | Phase 1 | Phase 2 | Phase 3 |
|------------------------------------|-----|-----|-----|---------|---------|---------|
| <b>Congenital spinal disorders</b> |     |     |     |         |         |         |
| <b>OBJECTIVE</b>                   |     |     |     |         |         |         |

|   |  |  |  |  |  |   |
|---|--|--|--|--|--|---|
| To achieve competence in all aspects of the management (operative and non-operative) of children with congenital spinal disorders |  |  |  |  |  |   |
| <b>KNOWLEDGE</b>  |  |  |  |  |  |   |
| <b>CLINICAL SKILLS</b>  |  |  |  |  |  |   |
| <b>TECHNICAL SKILLS and PROCEDURES</b>  |  |  |  |  |  | 4 |

|  | ST3 | ST6 | ST8 | Phase 1 | Phase 2 | Phase 3 |
|--|-----|-----|-----|---------|---------|---------|
| <b>Craniofacial disorders</b>  |     |     |     |         |         |         |
| <b>OBJECTIVE</b>   |     |     |     |         |         |         |
| To achieve competence in all aspects of the management of children with simple cranio-synostosis and cranial deformity after trauma or tumours |     |     |     |         |         |         |
| <b>KNOWLEDGE</b>   |     |     |     |         |         |         |
| <b>CLINICAL SKILLS</b>   |     |     |     |         |         |         |
| <b>TECHNICAL SKILLS and PROCEDURES</b>   |     |     |     |         |         | 3       |

|   | ST3 | ST6 | ST8 | Phase 1 | Phase 2 | Phase 3 |
|---|-----|-----|-----|---------|---------|---------|
| <b>Paediatric epilepsy</b>  |     |     |     |         |         |         |
| <b>OBJECTIVE</b>  |     |     |     |         |         |         |
| To understand the management of paediatric epilepsy and the assessment of children for epilepsy surgery |     |     |     |         |         |         |
| <b>KNOWLEDGE</b>  |     |     |     |         |         |         |
| <b>CLINICAL SKILLS</b>  |     |     |     |         |         |         |
| <b>TECHNICAL SKILLS and PROCEDURES</b>  |     |     |     |         |         | 3       |

|   | ST3 | ST6 | ST8 | Phase 1 | Phase 2 | Phase 3 |
|---|-----|-----|-----|---------|---------|---------|
| <b>Paediatric spasticity and movement disorders</b>   |     |     |     |         |         |         |
| <b>OBJECTIVE</b>  |     |     |     |         |         |         |
| To understand the principles of surgical management of spastic-ity and movement disorders in children |     |     |     |         |         |         |
| <b>KNOWLEDGE</b>  |     |     |     |         |         |         |
| <b>CLINICAL SKILLS</b>  |     |     |     |         |         |         |
| <b>TECHNICAL SKILLS and PROCEDURES</b>  |     |     |     |         |         | 3       |

|   | ST3 | ST6 | ST8 | Phase 1 | Phase 2 | Phase 3 |
|---|-----|-----|-----|---------|---------|---------|
| <b>Peripheral Nerve Neurosurgery</b>  |     |     |     |         |         |         |
| <b>Peripheral nerve compression</b>   |     |     |     |         |         |         |
| <b>OBJECTIVE</b>  |     |     |     |         |         |         |
| To achieve competence in carpal tunnel decompression. To achieve competence in the management of ulnar neuropathy |     |     |     |         |         |         |
| <b>KNOWLEDGE</b>  |     |     |     |         |         | 4       |
| <b>CLINICAL SKILLS</b>  |     |     |     |         |         | 4       |
| <b>TECHNICAL SKILLS and PROCEDURES</b>  |     |     |     |         |         | 4       |
| No Levels specified   |     |     |     |         |         |         |

|   | ST3 | ST6 | ST8 | Phase 1 | Phase 2 | Phase 3 |
|---|-----|-----|-----|---------|---------|---------|
| <b>Advanced Microsurgical Skills</b>  |     |     |     |         |         |         |
| <b>Peripheral nerve compression</b>   |     |     |     |         |         |         |
| <b>OBJECTIVE</b>  |     |     |     |         |         |         |
| To achieve competence in carpal tunnel decompression. To achieve competence in the management of ulnar neuropathy |     |     |     |         |         |         |
| <b>KNOWLEDGE</b>  |     |     |     |         |         |         |
| <b>CLINICAL SKILLS</b>  |     |     |     |         |         |         |
| <b>TECHNICAL SKILLS and PROCEDURES</b>  |     |     |     |         |         |         |
| No Levels specified   |     |     |     |         |         |         |

**INDEX PROCEDURES**

|  | ST3 | ST6 | ST8 | Phase 1 | Phase 2 | Phase 3 |
|--|-----|-----|-----|---------|---------|---------|
| <b>Advanced adult supratentorial</b>                                     |     |     |     |         |         |         |
| <b>OBJECTIVE</b>   |     |     |     |         |         |         |
| To achieve technical competence in advanced adult supratentorial surgery |     |     |     |         |         |         |
| <b>KNOWLEDGE</b>   |     |     |     |         |         |         |
| <b>TECHNICAL SKILLS and PROCEDURE</b>                                    |     |     | 3   |         | 3       | 4       |

|  | ST3 | ST6 | ST8 | Phase 1 | Phase 2 | Phase 3 |
|--|-----|-----|-----|---------|---------|---------|
| <b>Endoscopic and transphenoidal</b>                                     |     |     |     |         |         |         |
| OBJECTIVE  |     |     |     |         |         |         |
| To achieve technical competence in endoscopic and transphenoidal surgery |     |     |     |         |         |         |
| KNOWLEDGE  |     |     |     |         |         |         |
| TECHNICAL SKILLS and PROCEDURE   |     |     | 2   |         | 3       | 3 (4)   |

|  | ST3 | ST6 | ST8 | Phase 1 | Phase 2 | Phase 3 |
|--|-----|-----|-----|---------|---------|---------|
| <b>Convexity and falx meningiomas</b>                                    |     |     |     |         |         |         |
| OBJECTIVE  |     |     |     |         |         |         |
| To achieve technical competence in convexity and falx meningioma surgery |     |     |     |         |         |         |
| KNOWLEDGE  |     |     |     |         |         |         |
| TECHNICAL SKILLS and PROCEDURE   |     |     | 3   |         | 3       | 4       |

|  | ST3 | ST6 | ST8 | Phase 1 | Phase 2 | Phase 3 |
|--|-----|-----|-----|---------|---------|---------|
| <b>Advanced adult infratentorial</b>                                     |     |     |     |         |         |         |
| OBJECTIVE  |     |     |     |         |         |         |
| To achieve technical competence in advanced adult infratentorial surgery |     |     |     |         |         |         |
| KNOWLEDGE  |     |     |     |         |         |         |
| TECHNICAL SKILLS and PROCEDURE   |     |     | 3   |         | 3       | 4       |

|  | ST3 | ST6 | ST8 | Phase 1 | Phase 2 | Phase 3 |
|--|-----|-----|-----|---------|---------|---------|
| <b>Intradural spine</b>                                      |     |     |     |         |         |         |
| OBJECTIVE  |     |     |     |         |         |         |
| To achieve technical competence in intradural spinal surgery |     |     |     |         |         |         |
| KNOWLEDGE  |     |     |     |         |         |         |
| TECHNICAL SKILLS and PROCEDURE                               |     |     | 2   |         | 3       | 4       |

|  | ST3 | ST6 | ST8 | Phase 1 | Phase 2 | Phase 3 |
|--|-----|-----|-----|---------|---------|---------|
| <b>Complex spinal fusion</b>                             |     |     |     |         |         |         |
| OBJECTIVE  |     |     |     |         |         |         |
| To achieve technical competence in spinal fusion surgery |     |     |     |         |         |         |
| KNOWLEDGE  |     |     |     |         |         |         |
| TECHNICAL SKILLS and PROCEDURE                           |     |     |     |         | 3       | 3 (4)   |

|  | ST3 | ST6 | ST8 | Phase 1 | Phase 2 | Phase 3 |
|--|-----|-----|-----|---------|---------|---------|
| <b>Advanced paediatric supratentorial</b>                        |     |     |     |         |         |         |
| OBJECTIVE  |     |     |     |         |         |         |
| To gain experience in advanced paediatric supratentorial surgery |     |     |     |         |         |         |
| KNOWLEDGE  |     |     |     |         |         |         |
| TECHNICAL SKILLS and PROCEDURE                                   |     |     |     |         | 2       | 2 (3)   |

|  | ST3 | ST6 | ST8 | Phase 1 | Phase 2 | Phase 3 |
|--|-----|-----|-----|---------|---------|---------|
| <b>Advanced paediatric infratentorial</b>                        |     |     |     |         |         |         |
| OBJECTIVE  |     |     |     |         |         |         |
| To gain experience in advanced paediatric infratentorial surgery |     |     |     |         |         |         |
| KNOWLEDGE  |     |     |     |         |         |         |
| TECHNICAL SKILLS and PROCEDURE                                   |     |     |     |         | 2       | 2 (3)   |

## CRITICAL CONDITIONS

|  | ST3 | ST6 | ST8 | Phase 1 |
|--|-----|-----|-----|---------|
| <b>Impaired consciousness and seizures</b>   |     |     |     |         |
| <b>OBJECTIVE</b>   |     |     |     |         |
| To achieve competence in the emergency management of patients presenting with impaired cor |     |     |     |         |
| <b>KNOWLEDGE</b>   | 4   |     |     | 4       |
| <b>CLINICAL SKILLS</b>   | 4   |     |     |         |
| <b>TECHNICAL SKILLS and PROCEDURE</b>  | 4   |     |     |         |

|   | ST3   | ST6   | ST8 | Phase 1 |
|---|-------|-------|-----|---------|
| <b>Cranial trauma</b>   |       |       |     |         |
| <b>OBJECTIVE</b>  |       |       |     |         |
| To achieve competence in the emergency, intensive care and ward based management of head- |       |       |     |         |
| <b>KNOWLEDGE</b>  | 4     | 4     | 4   | 3       |
| <b>CLINICAL SKILLS</b>  | 3 (4) | 4     | 4   |         |
| <b>TECHNICAL SKILLS and PROCEDURE</b>   | 3 (4) | 3 (4) | 4   |         |

|  | ST3 | ST6 | ST8 | Phase 1 |
|--|-----|-----|-----|---------|
| <b>Acute hydrocephalus</b>   |     |     |     |         |
| <b>OBJECTIVE</b>   |     |     |     |         |
| To achieve competence in the emergency, intensive care and ward based management of patien |     |     |     |         |

|                                |       |        |   |   |
|--------------------------------|-------|--------|---|---|
| KNOWLEDGE                      | 4     | 4      | 4 | 3 |
| CLINICAL SKILLS                | 3 (4) | 4      | 4 |   |
| TECHNICAL SKILLS and PROCEDURE | 3 (4) | 2 to 4 | 4 |   |

|   | ST3   | ST6 | ST8 | Phase 1 |
|---|-------|-----|-----|---------|
| <b>Acute tumour presentations</b>   |       |     |     |         |
| OBJECTIVE   |       |     |     |         |
| To achieve competence in the emergency, intensive care and ward based management of patient |       |     |     |         |
| KNOWLEDGE   | 3 (4) | 4   | 4   | 2       |
| CLINICAL SKILLS   | 4     | 4   | 4   |         |
| TECHNICAL SKILLS and PROCEDURE  |       | 3   | 4   |         |

|   | ST3   | ST6 | ST8 | Phase 1 |
|---|-------|-----|-----|---------|
| <b>Spontaneous intracranial haemorrhage</b>   |       |     |     |         |
| OBJECTIVE   |       |     |     |         |
| To achieve competence in the emergency, intensive care and ward based management of patient |       |     |     |         |
| KNOWLEDGE   | 4     | 4   | 4   | 2       |
| CLINICAL SKILLS   | 3 (4) | 4   | 4   |         |
| TECHNICAL SKILLS and PROCEDURE  | 4     | 3   | 4   |         |

|   | ST3 | ST6 | ST8 | Phase 1 |
|---|-----|-----|-----|---------|
| <b>CNS infections</b>   |     |     |     |         |
| OBJECTIVE   |     |     |     |         |
| To achieve competence in the emergency, intensive care and ward based management of CNS |     |     |     |         |
| KNOWLEDGE   |     | 4   | 4   | 2       |
| CLINICAL SKILLS   |     | 4   | 4   |         |
| TECHNICAL SKILLS and PROCEDURE  |     | 4   | 4   |         |

|  | ST3 | ST6 | ST8 | Phase 1 |
|--|-----|-----|-----|---------|
| <b>Spinal trauma</b>   |     |     |     |         |
| OBJECTIVE  |     |     |     |         |
| To achieve competence in the emergency, intensive care and ward based management of spinal |     |     |     |         |
| KNOWLEDGE  | 4   | 4   | 4   | 2       |
| CLINICAL SKILLS  |     | 4   | 4   |         |

|                                |  |        |   |  |
|--------------------------------|--|--------|---|--|
| TECHNICAL SKILLS and PROCEDURE |  | 2 to 4 | 4 |  |
|--------------------------------|--|--------|---|--|

|  | ST3 | ST6    | ST8 | Phase 1 |
|--|-----|--------|-----|---------|
| <b>Spinal oncology</b>   |     |        |     |         |
| OBJECTIVE  |     |        |     |         |
| To achieve competence in the emergency, intensive care and ward based management of spinal |     |        |     |         |
| KNOWLEDGE  | 4   | 4      | 4   | 2       |
| CLINICAL SKILLS  |     | 4      | 4   |         |
| TECHNICAL SKILLS and PROCEDURE   |     | 2 to 3 | 4   |         |

|   | ST3 | ST6 | ST8 | Phase 1 |
|---|-----|-----|-----|---------|
| <b>Acute spinal disorders and cauda equina syndrome</b>                                   |     |     |     |         |
| OBJECTIVE   |     |     |     |         |
| To achieve competence in the emergency, intensive care and ward based management of acute |     |     |     |         |
| KNOWLEDGE   | 4   | 4   | 4   | 3       |
| CLINICAL SKILLS   |     | 4   | 4   |         |
| TECHNICAL SKILLS and PROCEDURE  |     | 3   | 4   |         |

|  | ST3 | ST6    | ST8 | Phase 1 |
|--|-----|--------|-----|---------|
| <b>Emergency paediatric neurosurgery</b>   |     |        |     |         |
| OBJECTIVE  |     |        |     |         |
| To achieve competence in the emergency management of paediatric neurosurgical patients |     |        |     |         |
| KNOWLEDGE  |     | 4      | 4   | 1       |
| CLINICAL SKILLS  |     | 4      | 4   |         |
| TECHNICAL SKILLS and PROCEDURE   |     | 2 to 4 | 4   |         |



The old curriculum incorporated technical skills into the assessment of these critical conditions. The new curriculum is measured using knowledge scores not technical ability scores.

| Phase 2                | Phase 3 |
|------------------------|---------|
| [Redacted]             |         |
| consciousness and non- |         |
| 4                      | 4       |

renamed - was impaired consciousness and non-traumatic coma. Also moved from common neurological presentations section above

| Phase 2          | Phase 3 |
|------------------|---------|
| [Redacted]       |         |
| injured patients |         |
| 4                | 4       |

general management of the head injured patient and management of soft tissue trauma have been brought together for this critical condition. The procedures of insertion of ICP monitor and drainage of chronic subdural haematoma are phase 1 index procedures (see below)

| Phase 2               | Phase 3 |
|-----------------------|---------|
| [Redacted]            |         |
| its with acute hydroc |         |

Management of post haemorrhagic hydrocephalus and adult hydrocephalus have been brought together. Lumbar puncture and insertion of EVD are index procedures at this level.

|   |   |
|---|---|
| 4 | 4 |
|---|---|

| Phase 2                | Phase 3 |
|------------------------|---------|
|                        |         |
| ts with intracranial t |         |
| 4                      | 4       |

Renamed from assessment and peri-operative management of patients with space-occupying intracranial tumours

| Phase 2              | Phase 3 |
|----------------------|---------|
|                      |         |
| ts with subarachnoid |         |
| 4                    | 4       |

General management of subarachnoid haemorrhage and management of delayed secondary ischaemia have been brought together. Lumbar puncture is an index procedure

| Phase 2    | Phase 3 |
|------------|---------|
|            |         |
| infections |         |
| 4          | 4       |

This was missed in the initial ST1 -3 part of the current curriculum

| Phase 2  | Phase 3 |
|----------|---------|
|          |         |
| l trauma |         |
| 4        | 4       |

Expanded from acute spinal disorders

|  |  |
|--|--|
|  |  |
|--|--|

| Phase 2  | Phase 3 |
|----------|---------|
|          |         |
|          |         |
| oncology |         |
| 4        | 4       |

Expanded from acute spinal disorders

| Phase 2               | Phase 3 |
|-----------------------|---------|
|                       |         |
|                       |         |
| spinal disorders espe |         |
| 4                     | 4       |

Expanded from acute spinal disorders

| Phase 2 | Phase 3 |
|---------|---------|
|         |         |
|         |         |
|         |         |
| 4       | 4       |

This is an addition - it is an important emergency condition which phase 1 trainees do need some knowledge of.