QEF Neuro Rehabilitation Services

Service Provision

qef.org.uk
QEF Neuro Rehabilitation Services (QEF NRS) has provided specialist Acquired Brain Injury (ABI) services at its Surrey-based centre for more than 20 years.

The level of specialist consultant-led neurorehabilitation delivered at NRS is that of a 2b unit according to national standards.

QEF NRS provides comprehensive neurorehabilitation for male and female clients aged 16-65 years who have moderate to severe physical, cognitive and/or communicative disabilities which may include mild to moderate behavioural problems.

Programmes are residential or non-residential and include intensive neurorehabilitation, vocational rehabilitation, transition support and outreach services.

The ABI may be the result of trauma, stroke, tumour, anoxia, meningitis or a neurological condition. Clinical evidence supports the early access to specialist neurorehabilitation services for clients with an ABI. Clients who have had an early referral programme in the acute stages of recovery have significantly better social integration, emotional wellbeing and vocational functioning than those individuals receiving rehabilitation services later in recovery, despite having greater functional limitations upon entry\(^1\). The effectiveness has been demonstrated of early intensive rehabilitation with specialist programmes for those with complex needs and specialist vocational programmes for those with the potential to return to work\(^2\).

Causes of Acquired Brain Injury referrals to QEF NRS (2012-2014)

- Tumour: 2%\(^1\)
- Infection: 1%
- Stroke: 2%
- Metabolic Disorder: 2%
- Hypoxia: 6%
- Anoxia: 6%
- Hydrocephalus: 19%
- TBI: 62%

Location

QEF NRS is located in Banstead, Surrey, a short walk from the local village with full amenities; it is a spacious, well-equipped building in six acres of gardens, woodland and recreation areas. Clients have their own bedroom equipped with aids and a call system; they may move, when appropriate, to independent living units, a group home or independent living flats all on the same site, to facilitate increasing independence.

Interdisciplinary team

QEF NRS has a specialist and highly experienced interdisciplinary team (see Table 1).

<table>
<thead>
<tr>
<th>Table 1: QEF NRS Interdisciplinary team</th>
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<tbody>
<tr>
<td>- Consultant in rehabilitation medicine/medical director</td>
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<tr>
<td>- Nursing and rehabilitation support team</td>
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<tr>
<td>- Physiotherapists</td>
</tr>
<tr>
<td>- Speech and language therapists</td>
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<tr>
<td>- Occupational therapists</td>
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<tr>
<td>- Neuropsychologists</td>
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<tr>
<td>- Vocational team</td>
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<tr>
<td>- Art and design technology tutors</td>
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<tr>
<td>- Recreation team</td>
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</table>
Residential and non-residential rehabilitation services

QEF NRS provides a wide range of residential and non-residential specialist rehabilitation services (see Table 2).

Table 2: Range of services provided by QEF NRS

- Physiotherapy
- Speech and language therapy
- Occupational therapy
- Neuropsychology
- Vocational rehabilitation including work placements and re-entry to work
- Transition
- Medico-legal assessment including capacity and neuropsychological assessments
- Outreach: community rehabilitation and support (home or centre-based)
- Advisory and counselling service

QEF NRS has a client-centred approach; a programme is developed for each client and tailored to suit their individual needs and goals. Clients attend 1:1 or group sessions and the programmes are of varying duration, depending on the severity of disability and individual needs. Many clients at QEF NRS require a minimum three to six months rehabilitation programme; others may require between 12 and 24 months. A review by Turner-Stokes et al (2011) showed that more intensive rehabilitation is associated with rapid functional gains once the patient is fit to engage. Highly dependent patients with severe traumatic brain injury also made sufficient functional gains, but required longer lengths of stay and more intensive treatment3.
Admission criteria

QEF NRS admits clients from 16 years of age with ABI who are medically stable (see Table 3). The Centre has a specific expertise with young people between 16 and 24 years; to date 63% of clients admitted have been within this age group. Clients must have the potential to benefit from, and the ability to participate in, rehabilitation programmes.

Table 3: QEF NRS admission criteria

- Males and females with Acquired Brain Injury
- From 16 years of age
- Medically stable
- Potential to benefit from, and the ability to participate in rehabilitation programmes

Clients may have a range of problems including physical, cognitive, communication, psychological, behavioural and social, all requiring rehabilitation from an expert interdisciplinary team (see Table 4).

Table 4: Range of problems managed by QEF NRS

- Physical
- Medical (e.g. PEGs, catheters, VP shunts, epilepsy, diabetes)
- Cognitive
- Communication
- Psychological
- Behavioural
- Social

Referrals come from medical, social care, legal and personal injury professionals. Clients may be referred from hospital to begin their programme at QEF NRS. Some clients are referred several years after their injury, from home, when it becomes apparent that they are not fulfilling their potential for completing the tasks of daily living, or from a vocational perspective.

![Residence prior to admission to QEF NRS](chart)

- Acute neurorehabilitation: 67%
- Living with family: 3%
- Living alone with support: 3%
- Residential care: 6%

![Time to access QEF NRS from assessment to admission 2012-2014](chart)

- 0-3 months: 86%
- 3.1-6 months: 6%
- 6.1-9 months: 8%
Assessment

The client, their family and the commissioner or funding representative are invited for an informal visit to QEF NRS, as appropriate. A preliminary assessment is carried out to identify rehabilitation needs, goals and the client’s potential. An evaluation report is produced together with the recommended rehabilitation programme and cost.

Admission

On admission, the client has a full baseline assessment, Goal Attainment Scaling (GAS) goals are agreed and a rehabilitation programme developed according to the individual’s needs. An interdisciplinary team is then assigned to the client.

The client is assessed using the Functional Independence Measure (FIM) to evaluate functional status throughout the rehabilitation process. They are also assessed using the Functional Assessment Measure (FAM) that specifically addresses the major functional areas that are emphasised less in FIM such as cognitive, behavioural and communication difficulties.

Monitoring and outcomes

Progress towards the GAS goals is reviewed fortnightly and data submitted to the UK Rehabilitation Outcomes Collaborative (UKROC) database. Three-monthly (or more frequently if required) progress reports are prepared.

Weekly key worker review meetings take place with the client and a weekly interdisciplinary team case conference is also held. The key workers, therapists and nurses are in regular communication with the family.

A study of 106 adults aged 16-36 years with moderate to severe traumatic brain injury who attended and were discharged from QEF NRS over a period of 10 years found that they made clinically and statistically significant improvements in their functional abilities during their neurorehabilitation. This improvement was predicted by their initial functional ability and also the duration of their QEF NRS rehabilitation programme.

### Functional independence at admission and discharge (measured by FIM/FAM) at QEF NRS

<table>
<thead>
<tr>
<th>Cognitive dependency at admission</th>
<th>Motor dependency at discharge</th>
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</thead>
<tbody>
<tr>
<td>High</td>
<td>31%</td>
</tr>
<tr>
<td>Medium</td>
<td>37%</td>
</tr>
<tr>
<td>Low</td>
<td>32%</td>
</tr>
<tr>
<td>High</td>
<td>5%</td>
</tr>
<tr>
<td>Medium</td>
<td>42%</td>
</tr>
<tr>
<td>Low</td>
<td>47%</td>
</tr>
<tr>
<td>High</td>
<td>21%</td>
</tr>
<tr>
<td>Medium</td>
<td>32%</td>
</tr>
<tr>
<td>Low</td>
<td>16%</td>
</tr>
<tr>
<td>High</td>
<td>58%</td>
</tr>
<tr>
<td>Medium</td>
<td>47%</td>
</tr>
<tr>
<td>Low</td>
<td>26%</td>
</tr>
</tbody>
</table>

Acute neurorehabilitation
Living with family
Living alone with support
Residential care
Transition and discharge

As part of their rehabilitation programme, QEF NRS helps the client decide where they would like to live, daytime activities they would like to undertake when they are discharged, and support required if the client goes on to college or university. A final report on the client’s support needs is prepared and circulated to the relevant professionals and relatives. Transition planning is a key part of the discharge process and training is provided for support workers to enable a smooth onward journey.

From 2012 to 2014, 23% of clients leaving QEF NRS were able to live independently, 51% were able to return home to live with either their parents or a partner and 18% could live independently with support.

Educational/vocational progress of clients leaving QEF NRS (2012-2014)

- Paid employment: 31%
- Voluntary employment: 18%
- Re-training: 12%
- Full-time education: 12%
- Part-time education: 6%
- Supported weekly activities: 18%

References


QEF NRS has an excellent track record for returning clients to the education system. From 2012 to 2014, 19% of clients leaving QEF NRS were in full-time education and 12% were in part-time education (school, college or university). In addition 6% were in paid employment, 12% in voluntary employment and 18% were attending employment retraining.

For further information on referrals, please contact:
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E: neurorehab@qef.org.uk
### Admission criteria
- Males and females with acquired brain injury
- From 16 years of age (speciality for younger adults)
- Medically stable
- Potential to benefit from, and the ability to participate in QEF NRS programmes

### Referral
- Referral from medical, social care, legal and personal injury professionals
- Informal visit to QEF NRS from client, family and funding representative

### Preliminary assessment
- Discuss rehabilitation needs
- Determine goals
- Assess client potential
- Produce evaluation report including proposed rehabilitation strategy and cost

### On admission
- Interdisciplinary team assigned
- Programme agreed
- Full baseline assessment
- GAS goals agreed
- Evaluation of client status using UKROC outcome tools

### Monitoring and outcomes
- Progress towards GAS goals is reviewed fortnightly and data submitted to UKROC
- Weekly key worker review meetings
- Weekly interdisciplinary team case conference
- UKROC outcome measures used to evaluate rehabilitation process
- Three-monthly progress reports prepared (or more frequently as required)
- Programme adapted as required
- Key workers/therapists/nurses in regular communication with family

### Transition and discharge
- Assistance with identifying accommodation and daytime activities that the client would like to undertake
- Referrals are made to the community team as required
- Training for support workers to ensure smooth transition
- Support provided for clients who go on to college/university
For further information on referrals, please contact:

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