Programme objectives for the 6 specialised service areas

Clinical Leaders Meeting

Updated Version August 2018

NOT a statement of NHS England policy
Initial six specialised service areas

<table>
<thead>
<tr>
<th>Specialty Area</th>
<th>Chairs of relevant POC Boards &amp; Clinical Reference Groups</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Renal Dialysis</td>
<td>Richard Fluck, Richard Baker</td>
</tr>
<tr>
<td>2. Chemotherapy</td>
<td>Rory Harvey, Peter Clark</td>
</tr>
<tr>
<td>3. Emergency Cranial Neurosurgery</td>
<td>Paul May, Adrian Williams</td>
</tr>
<tr>
<td>4. Interventional Cardiology</td>
<td>Richard Fluck, Huon Gray</td>
</tr>
<tr>
<td>5. Complex Spinal Surgery</td>
<td>Paul May, Ashley Cole</td>
</tr>
<tr>
<td>6. Adult critical care</td>
<td>Paul May, Jane Eddleston</td>
</tr>
</tbody>
</table>
Initial assessment for testing Clinical Frailty Scale:  
1. Renal Dialysis

**Desired outcome:**

To strengthen the shared decision making process between clinically frail patients, at or approaching end stage renal failure, and clinicians to ensure the most appropriate decision on Renal Replacement Therapy (RRT) – i.e. whether to go with dialysis or ‘conservative care’ and type of dialysis

**Clinical Leaders:**

- Richard Baker (Chair of the Renal Services CRG. Consultant Nephrologist, Leeds Teaching Hospitals Trust)
- Richard Fluck (Chair of the Internal Medicine PoC. Consultant Renal Physician, Royal Derby Hospital)

(a) Key stats:

Each year, in England, about 5,800 people start treatment for kidney failure and there are currently about 46,000 people receiving treatment for kidney failure. Not treating or withdrawal of treatment leads to death in the majority of patients with kidney failure within three weeks. Of those affected:

- about half are treated with a kidney transplant
- about four in 10 are treated with haemodialysis
- about one in 10 are treated with peritoneal dialysis

(b) Clinical Frailty - Current challenges:

- Frailty, in principle, could be an objective marker of patient outcomes – but it is not measured in a systemic way so can’t benchmark across different centres or between services
- Currently have a low clearance for patients RRT, but involvement of wider team in making a decision on whether to go for transplant, dialysis or wider care is variable

(c) Use of Clinical Frailty Scale (CFS) – Opportunities:

- CFS tool could be an objective measure (integrated into shared decision making process) to support the ‘preparation for RRT’ pathway (i.e. end stage renal failure) and specific decisions on (a) whether to go with dialysis or ‘conservative care’ and (b) type of dialysis
- Can be a 1-2yr run-in time for the patient before reaching ‘end stage’, so a CFS (or a Comprehensive Geriatric Assessment tool) could be used as a marker / trigger by clinicians and the patient’s wider team to plan intervention & maximise experience of care (potential to link to patient PROMS and renal specific measures in the EQSD)

(d) Key clinical / patient stakeholder groups

Go through the Kidney Quality Improvement Partnership (alliance for all relevant organisations) with includes:

- Renal Association
- British Renal Society
- Kidney Care UK
- National Kidney association
- Kidney research UK
- NHS Improvement
- RCP – Joint Speciality committee (JSC)

(e) Clinical Frailty – key research questions

- Is it feasible to use a clinical frailty measure? (Can the relevant clinicians / clinical team use it? What are the training requirements? Can we collect & utilise the required data?)
- Can we look at variation in the people (and between centres) that go on to RRT by clinical frailty score
- Is that variation unwarranted? If yes, can a more standardised use of the CFS reduce unwarranted variation?

(f) Agreed Pilot Sites

- University Hospitals Birmingham
- Nottingham University Hospitals
- King’s College Hospital
- Lancashire Teaching Hospitals
- Leeds Teaching Hospitals
# Initial assessment for testing Clinical Frailty Scale: 2. Chemotherapy

**Desired outcome:**
To strengthen the shared decision making process for lung cancer patients between clinicians, patients, relatives and carers with a PS score of 2, and ensure they are referred to the most appropriate treatment (e.g. a course of chemotherapy, alternative palliative care)

**Clinical Leaders:**
- Peter Clark (Chemotherapy CRG chair, NHSE. Medical Oncologist, Clatterbridge Cancer Centre)
- Rory Harvey (Cancer PoC lead, NHSE. Consultant Gastroenterologist, Bedford Hospital)

### (a) Key stats:
- 200,000 patients receiving chemotherapy at any one time
- 36000 patients diagnosed with lung cancer each year
- Median age at Δ of lung cancer is 72yrs
- Variable 30-day mortality for lung cancer between Trusts
- 142 chemotherapy providers for all cancers across England
- £2.3bn cost of all chemotherapy for all cancers (£2bn for drugs, £300m for delivery)

### (b) Clinical Frailty - Current challenges:
- New chemotherapy drugs already use a prior approval process (i.e. blueteq) so oncologists are used to applying screening criteria, (as from July 2016) but not applicable for all chemotherapy drugs
- ECOG Performance Status (PS) is used by clinicians to assess ‘appropriateness’ of chemo treatments – it is a 0-5 scale and already evidence showing correlation between score & outcome (i.e treatments for PS 0-1 result in better outcomes, while PS 3 are poor).
- However, those with a PS score of 2 pose particular challenges for clinicians (esp. in lung cancer) and can be a subjective judgement on whether to use chemo

### (c)’ Use of Clinical Frailty Scale (CFS) – Opportunities:
- Potentially use of a CFS could be used to enhance the shared decision making process with lung cancer patients with an ECOG PS score of 2 on whether to progress to chemotherapy or Enhanced Care Package
- Could ‘auto-trigger’ / support conversations between patients, carers and clinicians on discussing risk / benefits of using chemotherapy (note: evidence to show CFS tool correlates with prediction of mortality within given time period)
- Could support assessment over time – i.e. provide a ‘baseline’ on 1st time ‘snapshot’ consultations and then monitor objectively measure change over time

### (d) Key clinical / patient stakeholder groups
- RCP and ACP (medical oncology)
- RC Radiologists (clinical oncology)
- RC Pathologists s and BSH (haematological oncology): not applicable to lung cancer
- Joint Collegiate Council for Oncology
- UK Oncology Nursing Society
- Cancer Alliances

### (e) Clinical Frailty – key research questions
- Is the use of a CFS feasible by clinicians as part of an assessment and shared decision making process for lung cancer patients with a PS2 score?
- Does the use of a CFS tool enhance the appropriateness of lung cancer patients with a PS2 score being referred for chemotherapy treatments (vs other alternative care pathways)?

### (f) Agreed Pilot Sites
- Newcastle upon Tyne Hospitals
- Cambridge University Hospitals
- Sheffield Teaching Hospitals
- Christie
- University College London Hospitals
Initial assessment for testing Clinical Frailty Scale: 3. Emergency Cranial Neurosurgery

**Desired outcome:**
To enhance the appropriateness of emergency referral for clinically frail patients to Neuro-surgical critical care

**Clinical Leaders:**
- **Adrian Williams** (Chair of Neurology CRG Professor of Neurology, University Hospitals Birmingham NHS Trust)
- **Paul May** (President Society of British Neurological Surgeons. Clinical Chair Trauma PoC, NHSE. Neurosurgeon, The Walton Centre - Liverpool)

### (a) Key stats:
- England is served by a network of 25 neurosurgical units covering populations of between 1.0 and 3.5 million
- Emergency and urgent activity accounts for approximately 50% of the caseload of a neurosurgical unit
- Neurosurgical activity has been increasing steadily at annual growth rates of 2-5%. In-patient hospital spells are reaching 1400/million population in larger units and operative caseload is typically 1000 cases/million population

### (b) Clinical Frailty - Current challenges:
- Centres receiving high number (and increasing number) of inappropriate referrals to Emergency Cranial Neurosurgery in the 80+ group (vs group aged below 80). Results in non-acceptance of transfer. At the Walton centre only 5% of octogenarians referred are accepted, vs 20% of those under 80. Also experiencing a ‘Friday effect’ in referral distribution
  - Criteria for accepting transfer of the clinically frail into neurosurgery critical care varies significantly between centres - no standard mechanism to assess patients
  - Neurosurgeons want to understand the patient ‘not just the scan’ but often don’t get wider info on patient

### (c) Use of Clinical Frailty Scale (CFS) – Opportunities:
- Could enable a live study of neuro critical care patients referred and application of a CFS score for those patients to better who understand if correlates with who is being referred and who is being accepted for transfer – that information could then be used to change behaviours around patient selection
- Used to trigger / support multi-disciplinary (e.g. with neurologist, GP, geriatrician) thinking with the family about appropriateness of surgery / after-care planning
- Could be used to address arbitrary / variable admission criteria for emergency cranial neurosurgery across different centres

### (d) Key clinical / patient stakeholder groups
- See Adult critical care list
- Neuro Anaesthesia & Critical care society
- Society of British Neurological Surgeons (SBNS)
- Association of British Neurologists
- RCP / RCS / RCA
- RCEM
- RCGP

### (e) Clinical Frailty – key research questions
- Is the CFS an appropriate tool by referring clinicians when making a decision on whether to refer?
  - If yes, how could it be improved to optimise its effectiveness specifically regarding decision to refer patients (over 80) in emergency situation for neuro-surgery
  - How does a CFS (and impact on who is accepted for transfer) correlate with other measures of the population (e.g. socio-economic status)?

### (f) Clinical Frailty – criteria for pilot sites / potential sites
- Go through the SBNS to select sites. Premium should be put on sites / areas that are already collecting good data (i.e. use of the NORSE, ORIEN or London specific databases)
  - Liverpool
  - Manchester
  - Birmingham
  - London Kings
Initial assessment for testing Clinical Frailty Scale:
4. Complex cardio surgery and interventional cardiology

**Desired outcome:**
To strengthen the clinical assessment of clinically frail patients with Aortic Valve Stenosis, reduce the number of inappropriate physician referrals for specialised commissioned interventions – including Transcatheter aortic valve implantation (TAVI) procedures - and enhancing a shared decision making process with patients / family to ensure the most appropriate care package for those patients

**Clinical Leaders:**
- **Huon Gray** (CRG chair for cardiac. NCD for Heart Disease, NHSE. Consultant Cardiologist, University Hospital of Southampton)
- **Richard Fluck** (Chair of the Internal Medicine PoC. Consultant Renal Physician, Royal Derby Hospital)

(a) Key stats:
Adult specialist cardiac services include a range of services provided by Specialist Cardiac centres - e.g. Implantable cardioverter defibrillators (ICDs), Cardiac resynchronisation therapy (CRT), Transcatheter Aortic Valve Implantation (TAVI)
- In 2015/16, 6,326 patients had an ICD implanted (94 per million of the population)
- In 2015/16, 6,274 patients had a CRT-D (defibrillator) device implanted (118 per million of the population)
- NICE guidance states an MDT should determine patient selection / risk level for each patient and TAVI device most suitable

(b) Clinical Frailty - Current challenges:
- Increasing number of patients with Aortic Synosis being identified (due to better identification of the condition and ageing population)
- Range of interventions available, from open heart surgery to Palliative Care. Prior to complex devices (ICDs) and TAVI, these patients would not have been referred for intervention as open heart surgery too risky. However, with advent of TAVI there has been a drive among physicians to refer elderly patients regardless of appropriateness and clinical frailty
- Anecdotally, ~50% of those referred for the TAVI, are not put forward for the intervention

(c)’ Use of Clinical Frailty Scale (CFS) – Opportunities:
- Use of objective CFS could potentially help (referring) physicians to understand appropriateness of an ICD / TAVI / surgical intervention (vs. other care pathways)
- The use of a CFS could support the physician to have a more constructive conversation with patients and relatives about (a) the risks / benefits of being referred for a TAVI, and (b) enhanced care packages that deliver the best outcomes for the patient
- Use of a more formal CFS could be used to (auto) trigger a more comprehensive assessment (i.e. an MDT with clinicians from other areas such as palliative care services) where clinical frailty is high

(d) Key clinical / patient stakeholder groups
- Specialised Cardiac Improvement Programme (working group in place)
- British Cardiac Intervention Society
- Society of cardiothoracic surgeons
- RCP, RCS

(e) Clinical Frailty – key research questions
- What are the drivers of quality improvement for patients with Aortic Value Stenosis, and how does use of a CFS by clinicians enhance those drivers (e.g. more appropriate referral? better shared decision making?)
  - What are the key metrics that need to be ‘designed in’ to an effective assessment of clinical frailty, specific to patients with Aortic Value Stenosis?

(f) Agreed Pilot Sites
- Leeds Teaching Hospitals
- Barts
- Oxford University Hospitals
- University Hospital Southampton
- Royal Papworth
## Initial assessment for testing Clinical Frailty Scale:
### 5. Complex spinal surgery

| Desired outcome: | To ensure patients considering surgery for degenerative spinal deformity are fully informed about the risks of surgery for them and are involved in a shared decision making process. To ensure medical and social optimisation and enhance recovery from surgery. |
| Clinical Leaders: | • Ashley Cole (CRG chair for spinal services. Consultant Spinal Surgeon, Sheffield Children’s Hospital & Northern General Hospital.  
• Paul May (President Society of British Neurological Surgeons. Clinical Chair Trauma PoC, NHSE. Neurosurgeon, The Walton Centre - Liverpool) |

### (a) Key stats:
- 800 adult patients receiving surgical treatment for adult spinal deformity  
- 400 of patients aged over 65  
- 16-20 of providers across England  
- £10m cost of service  
- Outcomes stats: PROMS, PREMS, Complications

### (b) Clinical Frailty - Current challenges:
- High complication rate of surgery (>50%). British Scoliosis Society currently doing a systematic review and modified Delphi process.  
- Stratified care is difficult as it is hard to predict who will do well clinically and who will develop significant complications.  
- No good or acceptable conservative treatment

### (c) Use of Clinical Frailty Scale (CFS) – Opportunities:
- Potentially a CFS score could predict outcome after instrumented correction of degenerative scoliosis?  
- Patient pathway decisions could be optimised through giving individual risk/benefit information (i.e. clinical frailty assessment and what that means for risk / benefit of treatment) to enable shared decision making

### (d) Key clinical / patient stakeholder groups
- Scoliosis Association UK  
- British Scoliosis Society  
- RCS

### (e) Clinical Frailty – key research questions
- It is likely that activity levels will reduce, but want to clear on whether that also correlates with improvement in outcomes  
- E.g. What does the optimal clinical frailty tool assessment look like for fitness for surgery, so that it can capture relevant detail to indicate if surgery for degenerative spinal deformity is more likely to be of benefit  
- How should a CFS by done, when and by whom to ensure it adds value to clinical assessment of the patient?

### (f) Clinical Frailty – criteria for pilot sites / potential sites
- Would probably need to involve the largest 6 units for numbers and given the number of confounding variables, it may take some time to achieve the numbers, but they could be encouraged to collect whatever data was required.  
- RNOH  
- Manchester
### Initial assessment for testing Clinical Frailty Scale: 6. Adult critical care

#### Desired outcome:
To use the evidence base concerning impact of frailty on outcome following major elective surgery / emergency referrals in decision making / patient selection for suitability of patients for major elective surgery / emergency referrals to critical care bed

#### Clinical Leaders:
- **Jane Eddleston** (Chair of the Adult Critical Care CRG, NHSE. Consultant in IC & Anaesthesia, Manchester Royal Infirmary)
- **Paul May** (President Society of British Neurological Surgeons. Clinical Chair Trauma PoC, NHSE. Neurosurgeon, The Walton Centre - Liverpool)

#### (a) Key stats:
- In 2015-16 there were 271,079 records of adult critical care periods, an increase of 4.4% from 2014-15
- Patients aged 50 years and over accounted for 77% in 2015-16 (where age is known), an increase of 3.3% from 2014-15
- Males made up more than half of all critical care records. Older males, those aged 50 and over, accounted for 45.2% of all critical care records in 2015-16 (where age and gender are known).

#### (b) Clinical Frailty - Current challenges:
- Clinical assessment for **emergency referrals** is done rapidly and clinician behaviour reflects use of informal measures (e.g. functional status, nutritional status, neuro-cognitive, muscle loss & 'reversibility'). High number of emergency admissions (linked to respiratory problems) and we know there is an issue with delayed discharges once admitted
- Clinical assessment for **elective referrals** presents an opportunity for more standardised measures and formal assessment, but moves to using clinical frailty scores is currently ad hoc & varied (e.g. Manchester moving to assessing using CFS patients undergoing major elective surgery)

#### (c) Use of Clinical Frailty Scale (CFS) – Opportunities:
- Use of a more formal & objective measure on clinical frailty could support clinician decision on when appropriate to accept / refer patients for treatments requiring critical care bed
- Could be used to complement / trigger more comprehensive assessment and (MDT) post-hospital planning for the patient (i.e. trigger further assessment of a patient’s muscle size / group to better understand risk of treatment)
- Provides a more objective measure that can be used by clinicians to support a conversation with patients / relatives on most appropriate care pathway

#### (d) Key clinical / patient stakeholder groups
- Faculty of Intensive care medicine
- Intensive Care society
- Neuro Anaesthesia & Critical care society
- Society for Cardiothoracic surgery
- Scottish Intensive Care Society
- Critical Care operational delivery networks
- RCOP, RCOS, and RCOA

#### (e) Clinical Frailty – key research questions
- What impact does the systematic use of a Clinical Frailty Score by referring clinicians have on the population undergoing major elective surgery where there is a recognised period of critical illness expected
- What does the optimal clinical frailty assessment tool(s) look like for emergency and elective referrals to a critical care unit? (e.g. is it Rockwood or does it need to be paired with other triggers? Does it enable the underlying causes of frailty to be clearly identified?)
- How do we ensure ‘buy-in’ / mitigate risks of clinical frailty measures being mis-interpreted (i.e. avoiding experience of the ‘Apache 2 scoring model’)

#### (f) Clinical Frailty – criteria for pilot sites / potential sites
- All major centres in England have Critical Care Units – one way of identifying potential sites is to use the PQIP (Perioperative Quality Improvement Programme) dataset - there are ~70 hospitals currently involved in this programme. Inclusion of CFS will aid evidence base in assisting decision making for elective surgery in frail patients.
- Work in Greater Manchester hospitals that is already programmed to include use of CFS in ERAS+ programme.