Management of Obsessive-Compulsive Disorder

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Epidemiology of OCD

• Lifetime prevalence of 2.3%; 12-month prevalence of 1.2%
• M:F ratio approximately 1:1
• Age of onset tends to be earlier for males (6-15 years) than for females (20-29 years)
• Long delays between onset of symptoms and diagnosis
• Even longer delay between onset and treatment; 17 years in one study

OCD in Tayside

- Prevalence of OCD = 1.1%
- 20% of cases will have severe functional impairment
- In Tayside (pop = 404,424) there will be 889 patients with severe functional impairment
- 37% won’t respond to NICE guideline treatments = 329 patients

*Cost impact of the NICE guideline on obsessive-compulsive disorder - England; Excel Spreadsheet; NICE, 2009.*
Why don’t we see much OCD?

- People unwilling to divulge symptoms (esp. sexual, violent, religious)
- Not recognised – anxiety acknowledged but diagnosis missed
- Simply not asked about
- Misattribution of symptoms to other disorders; sometimes OCD can seem almost psychotic
**Alternative manifestations of OCD**

**Table 1** Non-psychiatrists likely to see patients with obsessive-compulsive disorder (OCD)

<table>
<thead>
<tr>
<th>Professional</th>
<th>Reason for consultation</th>
</tr>
</thead>
<tbody>
<tr>
<td>General practitioner</td>
<td>Depression, anxiety</td>
</tr>
<tr>
<td>Dermatologist</td>
<td>Chapped hands, eczema, trichotillomania</td>
</tr>
<tr>
<td>Cosmetic surgeon</td>
<td>Concerns about appearance (body dysmorphic disorder)</td>
</tr>
<tr>
<td>Oncologist</td>
<td>Fear of cancer</td>
</tr>
<tr>
<td>Genitourinary specialist</td>
<td>Fear of HIV</td>
</tr>
<tr>
<td>Neurologist</td>
<td>OCD associated with Tourette’s syndrome</td>
</tr>
<tr>
<td>Obstetrician</td>
<td>OCD during pregnancy or puerperium</td>
</tr>
<tr>
<td>Gynaecologist</td>
<td>Vaginal discomfort from douching</td>
</tr>
</tbody>
</table>
Quality of Life in OCD

• OCD has significant impact on the domains of:
  – Family life
  – Instrumental performance
  – Activities of daily living
• QoL reductions generally comparable to that of major depression
• Impairment of social functioning is linearly related to severity of OCD
• As would be expected, comorbid depression lowers quality of life even further

## Burden of OCD

**Table**  The leading causes of disability worldwide, 1990

(As measured by years of life lived with a disability, YLD) | Total YLDs (millions) | Percent of total
---|---|---
All causes | 472.7 |  
1. Unipolar major depression | 50.8 | 10.7  
2. Iron-deficiency anemia | 22.0 | 4.7  
3. Falls | 22.0 | 4.6  
4. Alcohol use | 15.8 | 3.3  
5. Chronic obstructive pulmonary disease | 14.7 | 3.1  
6. Bipolar disorder | 14.1 | 3.0  
7. Congenital anomalies | 13.5 | 2.9  
8. Osteoarthritis | 13.3 | 2.8  
9. Schizophrenia | 12.1 | 2.6  
10. Obsessive-compulsive disorders | 10.2 | 2.2

In possibly one of the longest follow-up studies:

- 251 patients were examined using semi-structured interview between 1954-1956
- 122 of these were reviewed by same psychiatrist between 1989-1993

Mean length of follow-up was 47 years

Response rate in surviving patients was 82%

Course and outcome in OCD

• After almost 50 years:
  – Improvement seen in 83%
  – Recovery in 20%, recovery with subclinical symptoms in 28%
  – 38% of recoveries had done so in the 1950s
• 48% had had OCD for more than 30 years
• Qualitative symptom changes had occurred in 58% of patients

• Other studies have found that 4-11 years later, over 2/3 of patients still had OCD

• Persistence rate of OCD (from adolescent to adulthood) of 41%

• 40% of childhood/adolescent patients had a diagnosis other than OCD at follow-up


Predictors of outcome in OCD

• Worse outcome is associated with:
  – Early age of onset
  – Low social functioning at onset
  – Duration of illness at first assessment

• Higher baseline OCD symptoms predict the presence of other disorders at follow-up

DIAGNOSIS

How to screen for it, diagnose it, and exclude other disorders
Screening for OCD

- In the past month have you been bothered by recurrent thoughts, impulses, or images that were unwanted, distasteful, inappropriate, intrusive, or distressing? (e.g., the idea that you were dirty, contaminated or had germs, or fear of contaminating others, or fear of harming someone even though you didn’t want to, or fearing you would act on some impulse, or fear or superstitions that you would be responsible for things going wrong, or obsessions with sexual thoughts, images or impulses, or hoarding, collecting, or religious obsessions.)

- In the past month, did you do something repeatedly without being able to resist doing it, like washing or cleaning excessively, counting or checking things over and over, or repeating, collecting, or arranging things, or other superstitious rituals?
PHENOMENOLOGY

How to recognise OCD and differentiate it from other disorders
Phenomenology | Obsessions

• Ideas, thoughts, impulses, images
• Intrusive and inappropriate
• Excessive and unreasonable (not in children)
• Cause marked anxiety or distress
• Ego-dystonic:
  – Product of own mind, but experienced as alien ("not the thoughts I’d normally have")
  – Outwith own control
• Attempt to resist the intrusion or repetition
  – May be absent in very longstanding disorder
Phenomenology | Compulsions

- Repetitive behaviours or mental acts
- Aim is to reduce anxiety
- Not pleasurable in themselves
- Have to be recognised as excessive and unreasonable
- Usually linked to obsession(s)

<table>
<thead>
<tr>
<th>Obsession</th>
<th>Compulsion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dirt, germs, contamination</td>
<td>Handwashing</td>
</tr>
<tr>
<td>Harm to others</td>
<td>Checking, phoning, seeking reassurance</td>
</tr>
<tr>
<td>Door left unlocked/ oven left on</td>
<td>Checking</td>
</tr>
<tr>
<td>switch left on</td>
<td></td>
</tr>
</tbody>
</table>
Pattern of symptoms (N=2,261)

Phenomenology | Magical thinking

• For example, the belief that if you step on a crack, something bad will happen

• An example of ‘thought-action fusion’ – that the idea and the action/ consequence are the same

• ‘Thought-object fusion’ – the merger of a ‘bad’ idea with an object. For example, if a bad idea occurs whilst driving over a bridge, the person will have to drive over the bridge whilst trying to dissociate the bad thought from the action

• In many cases, rituals will be used
Phenomenology | Covert compulsions

• The patient may have compulsions which are not apparent
• For example, mental acts which have all the characteristics of compulsions but are not visible
• Typically, these might involve the repetition of words/ phrases, or other acts aimed at reducing anxiety
• Are often present in ‘pure’ obsessives (no compulsions)
Phenomenology | Neutralising behaviours

• If the patient has to postpone a compulsion (e.g. Handwashing), this generates anxiety

• However, many patients can temporarily reduce the intensity of anxiety by reassuring themselves that they can wash when they leave the office

• So, an exposure session might seem successful but the patient has managed to ‘neutralise’ the anxiety until later
Phenomenology | ‘Just right’

• Patients on TV have to perform their rituals a certain number of times
• In reality, many patients have to do them until it feels ‘just right’
• This might not be a consistent number
## ICD-10 versus DSM-IV

<table>
<thead>
<tr>
<th>ICD-10 (DCR-10)</th>
<th>DSM-IV</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Obsessions or compulsions (or both) present on most days for a period of at least two weeks</td>
<td>- No specifier for duration</td>
</tr>
<tr>
<td>- Cause distress or interfere with the subject’s social or individual functioning, usually by wasting time</td>
<td>- Cause marked distress, are time consuming (take more than 1 hour a day), or significantly interfere with the person’s normal routine, occupational functioning, or usual social activities or relationships</td>
</tr>
</tbody>
</table>
# Comorbidity

<table>
<thead>
<tr>
<th>Disorder</th>
<th>Prevalence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Depression</td>
<td>50-60%</td>
</tr>
<tr>
<td>Specific phobia</td>
<td>22%</td>
</tr>
<tr>
<td>Social phobia</td>
<td>18%</td>
</tr>
<tr>
<td>Eating disorder</td>
<td>17%</td>
</tr>
<tr>
<td>Alcohol dependence</td>
<td>14%</td>
</tr>
<tr>
<td>Panic disorder</td>
<td>12%</td>
</tr>
<tr>
<td>Tourette’s syndrome</td>
<td>7%</td>
</tr>
<tr>
<td>Schizophrenia</td>
<td>14%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Anxiety Problem</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type I: Those who met criteria for OCD only</td>
<td></td>
<td></td>
</tr>
<tr>
<td>OCD only</td>
<td>65</td>
<td>7.1</td>
</tr>
<tr>
<td>Type II: OCD and one additional anxiety problem</td>
<td></td>
<td></td>
</tr>
<tr>
<td>OCD + GAD</td>
<td>163</td>
<td>17.9</td>
</tr>
<tr>
<td>OCD + PD</td>
<td>16</td>
<td>1.8</td>
</tr>
<tr>
<td>OCD + PTSD</td>
<td>5</td>
<td>0.5</td>
</tr>
<tr>
<td>OCD + SP</td>
<td>19</td>
<td>2.1</td>
</tr>
<tr>
<td>Type III: OCD and two additional anxiety problems</td>
<td></td>
<td></td>
</tr>
<tr>
<td>OCD + SP + GAD</td>
<td>116</td>
<td>12.7</td>
</tr>
<tr>
<td>OCD + PD + GAD</td>
<td>145</td>
<td>15.9</td>
</tr>
<tr>
<td>OCD + GAD + PTSD</td>
<td>21</td>
<td>2.3</td>
</tr>
<tr>
<td>OCD + PD + SP</td>
<td>12</td>
<td>1.3</td>
</tr>
<tr>
<td>OCD + PD + PTSD</td>
<td>3</td>
<td>0.3</td>
</tr>
<tr>
<td>OCD + SP + PTSD</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>Type IV: OCD and three additional anxiety problems</td>
<td></td>
<td></td>
</tr>
<tr>
<td>OCD + PD + GAD + SP</td>
<td>200</td>
<td>22.0</td>
</tr>
<tr>
<td>OCD + PD + GAD + PTSD</td>
<td>38</td>
<td>4.2</td>
</tr>
<tr>
<td>OCD + GAD + SP + PTSD</td>
<td>20</td>
<td>2.2</td>
</tr>
<tr>
<td>OCD + PD + SP + PTSD</td>
<td>5</td>
<td>0.5</td>
</tr>
<tr>
<td>Type V: OCD and four additional anxiety problems</td>
<td></td>
<td></td>
</tr>
<tr>
<td>OCD + PD + GAD + SP + PTSD</td>
<td>82</td>
<td>9.0</td>
</tr>
</tbody>
</table>

Note. OCD = obsessive-compulsive disorder; GAD = generalized anxiety disorder; PD = panic disorder; SP = social phobia; PTSD = posttraumatic stress disorder.
Schizo-OCD

• OCD patients do not appear to be at higher risk of schizophrenia but schizophrenia patients are at higher risk of OCD (approx. 20-30%)
• Clozapine and Quetiapine can trigger O-C symptoms in schizophrenic patients
• Symptoms of OCD in schizophrenia very similar to ‘pure’ OCD
• Some studies have suggested use of anti-obsessionals and antipsychotics

Differentiating OCD from other disorders | Axis I disorders

• Schizophrenia:
  – Delusional thoughts/ stereotyped behaviours are not ego-dystonic and are not subject to reality testing
  – “of course I’m going to wash my hands because they’re trying to poison me…”

• Anorexia nervosa:
  – Preoccupation with food not ego dystonic; avoidance of food due to perceived deleterious consequences (i.e. weight gain)
Differentiating OCD from other disorders | Axis II disorders

- Anankastic/ Obessive-Compulsive Personality Disorder:
  - Doesn’t have clear obsessions and/or compulsions; usually below threshold
  - Typically involves a pervasive pattern of preoccupation with orderliness, perfectionism, and control
  - Must begin by early adulthood

- OCPD behaviour is usually ego-syntonic and there is rarely any resistance

- Prevalence of OCPD in patients with OCD is not any higher than other psychiatric disorders
OCD ‘DIMENSIONS’
The 4 domains of OCD: ‘COSH’

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Factor (Y-BOCS)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contamination/ cleaning</td>
<td><em>Cleaning</em>: cleaning and contamination</td>
</tr>
<tr>
<td>Obsessions/ checking</td>
<td><em>Forbidden thoughts</em>: aggression, sexual, religious, and somatic obsessions and checking compulsions</td>
</tr>
<tr>
<td>Symmetry/ ordering</td>
<td><em>Symmetry</em>: symmetry obsessions and repeating, ordering, and counting compulsions</td>
</tr>
<tr>
<td>Hoarding</td>
<td><em>Hoarding</em>: hoarding obsessions and compulsions</td>
</tr>
</tbody>
</table>


Other subtypes | Obsessional Slowness

• 9/10 are male, often with a history of prenatal problems
• Typically secondary to avoidance strategies and/or rituals
• Activity must be done ‘just right’ and without error
• May involve excessive repetition – appears ‘frozen’
• Typically looks bizarre and possibly psychotic, but a good history will identify underlying obsessions and/or compulsions

Prader-Willi syndrome

• Genetic disorder (paternal deletion) affecting chromosome 15

• Psychiatric symptoms include:
  – Ritualistic behaviours
  – Routines, hoarding, and ordering
  – Repetitive actions and speech

• However, checking, cleaning, and obsessional thoughts are rare


PANDAS

- **Pediatric Autoimmune Neuropsychiatric Disorders Associated with Streptococcal infections**
- Associated with group A β-haemolytic streptococcal (GABHS) infections
- **Criteria:**
  - Presence of OCD and/or a tic disorder
  - Prepubertal symptom onset
  - Episodic course of symptom severity
  - Association with GABHS infections
  - Association with neurological abnormalities

NEUROBIOLOGY OF OCD

Evidence from imaging studies
CSTC loops

• Cortico-Striatal-Thalamic-Cortical (CSTC) Loops/circuits
• Structural and functional
Summary of changes in OCD

• Fairly consistent abnormalities found in:
  – Orbitofrontal cortex (OFC)
  – Anterior Cingulate Gyrus (ACC)
  – Caudate nucleus

• With treatment, OFC, ACC and caudate activity improve toward normal, with drug therapy or behaviour therapy
ASSESSING OCD

Tools of the trade
What tools do you need?

• A copy of the MINI (for diagnosis of OCD and confirming comorbid conditions)
• The Y-BOCS (for assessing severity)
• A treatment ‘guideline’
  – NICE (2005)
  – Fineberg (2005)
Guidelines for managing OCD

Evidence-based pharmacotherapy of obsessive–compulsive disorder

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2 Department of Psychology, University of Hertfordshire, Hatfield, UK

Abstract

Obsessive–compulsive disorder is a prevalent and disabling lifespan disorder. Clomipramine and the SSRIs have been found to be effective across the range of symptoms, both in acute and longer-term studies. Meta-analyses have reported a larger treatment effect for clomipramine relative to the SSRIs, but this is not supported by evidence from head-to-head comparator studies and, based on their superior safety and tolerability, SSRIs are the preferred option for long-term treatment in most cases. The treatment-effect is usually gradual and partial, and many patients fail to respond adequately to first-line treatment. Pharmacological options for refractory cases include switching to an antipsychotic agent. Novel strategies are under investigation for this highly morbid group. This paper reviews the key questions related to OCD pharmacotherapy, synthesizing evidence derived from randomized controlled trials, meta-analyses and consensus guidelines.

Received 12 November 2003; Reviewed 2 December 2003; Revised 11 January 2004; Accepted 18 January 2004

Key words: Obsessive–compulsive disorder, pharmacological treatment, review.

Obsessive-compulsive disorder:

Core interventions in the treatment of obsessive-compulsive disorder and body dysmorphic disorder

National Clinical Practice Guideline Number 31
developed by
National Collaborating Centre for Mental Health
commissioned by the
National Institute for Health and Clinical Excellence

published by
The British Psychological Society and
The Royal College of Psychiatrists
Yale-Brown O-C Scale

- The ‘gold-standard’ scale for OCD research
- Comes in clinician-rated version (with semi-structured interview) and patient-rated version
- Clinician-rated version includes a symptom checklist (very useful to avoid missing symptoms)
- Reasonable correlation between the two, although patient-rated version usually rated higher


• Scored out of 40
• Obsession subscale (/20) and compulsion subscale (/20)
• Each subscale rates the same components of obsessions and compulsions


## Yale-Brown O-C Scale

<table>
<thead>
<tr>
<th>Category</th>
<th>Y-BOCS Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extreme</td>
<td>32-40</td>
</tr>
<tr>
<td>Severe</td>
<td>24-31</td>
</tr>
<tr>
<td>Moderate</td>
<td>16-23</td>
</tr>
<tr>
<td>Mild</td>
<td>8-15</td>
</tr>
<tr>
<td>None</td>
<td>0-7</td>
</tr>
</tbody>
</table>
Rational treatment of OCD

SRIs in OCD

• Mainstay of drug treatment are Serotonin Reuptake Inhibitors
• Includes all the SSRIs
• Gold-standard is Clomipramine
• As high doses are required, and response is delayed, careful dose titration is paramount
• Too fast, too soon = failed drug trial
• Whilst dose-response relationships for SSRIs are not established in depression, they are in OCD
## SRI doses in OCD

<table>
<thead>
<tr>
<th>Drug</th>
<th>Target daily dose in OCD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clomipramine</td>
<td>≥ 250mg</td>
</tr>
<tr>
<td>Fluoxetine</td>
<td>60mg</td>
</tr>
<tr>
<td>Paroxetine</td>
<td>60mg</td>
</tr>
<tr>
<td>Citalopram</td>
<td>60mg</td>
</tr>
<tr>
<td>Sertraline</td>
<td>≥ 200mg</td>
</tr>
<tr>
<td>Fluvoxamine</td>
<td>300mg</td>
</tr>
<tr>
<td>Escitalopram</td>
<td>≥ 20mg</td>
</tr>
</tbody>
</table>
Other antidepressants in OCD

- There is some evidentiary support for Venlafaxine in OCD
- Target dose ≥ 225mg/ day
- However, not all studies demonstrate benefit

Combination treatments

• Not much evidence, but adding Citalopram (well-tolerated SSRI which doesn’t inhibit CYP-450) to Clomipramine has been reported to be helpful

• May be a strategy worth considering if someone is experiencing prolonged QT<sub>c</sub> with Clomipramine
## Other treatments

<table>
<thead>
<tr>
<th>Treatment</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>IV Clomipramine</td>
<td>Rarely used, but benefit consistently reported in studies</td>
</tr>
<tr>
<td>Ondansetron</td>
<td>Benefit reported, but in small trials in non-refractory patients</td>
</tr>
<tr>
<td>Memantine</td>
<td>Small, open-label studies of augmentation report benefit but no good controlled studies</td>
</tr>
<tr>
<td>D-Cycloserine</td>
<td>A number of studies report enhanced response to CBT/ ERP when DCS is used</td>
</tr>
</tbody>
</table>
# Ineffective treatments

<table>
<thead>
<tr>
<th>Treatment</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Buspirone</td>
<td>Not effective</td>
</tr>
<tr>
<td>Benzodiazepines</td>
<td>Effective anxiolytics but not demonstrated benefit for O-C symptoms. Probably reserved for when someone has to use them short-term for a family wedding, for example.</td>
</tr>
</tbody>
</table>
Augmentation strategies

<table>
<thead>
<tr>
<th>Drug</th>
<th>OCD symptom reduction</th>
<th>Anxiety/ Depressive Symptom reduction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Olanzapine</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Risperidone</td>
<td>++</td>
<td>++</td>
</tr>
<tr>
<td>Quetiapine</td>
<td>+</td>
<td>+</td>
</tr>
</tbody>
</table>

- Risperidone is first-line SGA for OCD
- Quetiapine should be second-line
- Haloperidol also beneficial
- Patients with tics may have differential response to antipsychotics

Monitor response

• Use rating scales
  – PADUA (revised)
  – Y-BOCS (self-report)

• Response is typically categorised as a ≥ 25-35% reduction in Y-BOCS score and a CGI-I score of 1 or 2

• Remission is not universally agreed, but a Y-BOCS score <10 discriminates between active and control treatments in recent studies

Once response is established

1. Don’t reduce the dose
2. Don’t reduce the dose
3. Don’t reduce the dose

• There is no evidence to support dose reduction in long-term treatment
NEUROMODULATION

Deep Brain Stimulation (DBS) for OCD
Targets

Int. Caps. (Greenberg, 2006)

Int. Caps. (Nuttin, 2003)

Nucleus Accumbens (Sturm, 2003)

Subthalamic nucleus (Mallet, 2002). INCIDENTAL FINDING in PD (n=2)
Putative neurocircuitry of OCD

Cortex

Striatum (Caudate, Putamen, Nacc)

Thalamus

Gpi/ SNr

GPe

STN

Direct

Indirect
## DBS for OCD: Outcomes

<table>
<thead>
<tr>
<th>Study</th>
<th>N</th>
<th>Target</th>
<th>Duration</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nuttin et al, 1999</td>
<td>4</td>
<td>Ant. Limb of IC</td>
<td>N/S</td>
<td>“beneficial” in 3/4 (75%)</td>
</tr>
<tr>
<td>Nuttin et al, 2003</td>
<td>4</td>
<td>Ant. Limb of IC</td>
<td>≥6 months</td>
<td>Response in 3/4 (75%)</td>
</tr>
<tr>
<td>Gabriëls et al, 2003</td>
<td>3</td>
<td>Ant. Limb of IC</td>
<td>≥33 months</td>
<td>Improvement in 2/3 (66%)</td>
</tr>
<tr>
<td>Abelson et al, 2003</td>
<td>4</td>
<td>Ant. Limb of IC</td>
<td>4-23 months</td>
<td>One responder (25%) during blind phase; two (50%) during open phase</td>
</tr>
<tr>
<td>Sturm et al, 2003</td>
<td>4</td>
<td>Shell of (R) N Acc</td>
<td>24-30</td>
<td>Response in 3/4 (75%)</td>
</tr>
<tr>
<td>Denys, 2010</td>
<td>16</td>
<td>Bilateral NA</td>
<td>8 mo (N=16) + 4 week blind cross-over (N=14)</td>
<td>9/16 (56%) after open phase; mean Y-BOCS difference was 8.8 between active and sham phases</td>
</tr>
<tr>
<td><strong>Total/ Average</strong></td>
<td>35</td>
<td></td>
<td></td>
<td><strong>Response in 50-75%</strong></td>
</tr>
</tbody>
</table>

Case reports and incidental findings not listed above.
Conclusions

• OCD is at least as common as schizophrenia
• However, it is often missed
• Long delays occur between symptom onset and presentation/treatment
• Treatment is usually insufficient and symptom burden is high and quality of life is low
• Rating scales exist and can be used to make better treatment decisions
Conclusions

• Mainstay of treatment for mod-severe cases is SRIs
• Augmentation can be a helpful strategy, but follow the evidence
• Drugs need to be used at sufficient doses (max.) for sufficient lengths of time (≥12 weeks)
• Drugs will often allow sufficient reduction in symptoms for the patient to benefit from ERP
## Further reading

<table>
<thead>
<tr>
<th>Source</th>
<th>URL</th>
</tr>
</thead>
</table>
Further reading

http://www.psychiatrycpd.co.uk/learningmodules/assessmentandmanagementofo.aspx