# CLINICAL PRACTICE GUIDELINES FOR THE MANAGEMENT OF OBSESSIVE COMPULSIVE DISORDER

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## INTRODUCTION :

Obsessive Compulsive Disorder is a common chronic and disabling disorder marked by obsession and/or compulsion that are ego dystonic (unwanted behaviour) and causes significant distress to the patient & their families.

The essential feature of obsessive compulsive disorder is the symptoms of recurrent obsession or complusion which are distressing, time consuming and interfere with the person's life, occupational function, usual social activities or relationship.

### Definition :

Obsessions are recurrent, persistent thoughts, impulses or images that enters the mind despite the person's efforts to exclude them.

The characteristic feature is the subjective sense of a struggle the patient experiences while resisting the obsession which nevertheless intrudes into his awareness. Obsessions are recognised by the person as his own and not implanted from elsewhere. They are often regarded by him as untrue or senseless. They are generally about matter which the patient finds distressing or otherwise unpleasent. The presence of resistance is important because together with the lack of conviction about the truth of the idea, it distinguishes from delusions.

In contrast to obsession which is a mental act, compulsion is a behaviour. Specifically, compulsion is conscious, standardized, recurrent behaviour like counting checking or avoiding.

### Obsessions occurs in several forms :

1. Obsessive thoughts/images : are repeated and intrusive words or phrases or images which are usually upsetting to the patients.
2. Obsessive Ruminations : are repeated worrying themes of a more complex kind, for example, about the ending of the world.
3. Obsessional doubts : are repeated themes expressing uncertanity about previous actions.
4. Obsessional impulses : are repeated urges to carryout actions, usually actions that are aggressive, dangerous or socially embarrassing.
5. Obsessional phobias : is an unsatisfactory term that is used to denote obsessional symptoms associated with avoidance as well as anxiety.

Although Obsessions are varied, most can be grouped into one or other of six categories. (1)

1. Dirt & Contamination
2. Violence
3. Orderliness
4. Illness
5. Sex
6. Religion

Thoughts about dirt and contaminations are usually associated with idea of harming others through the spread of disease.

According to DSM-IV - TR - Obsessions are defined by the following features.

1. Recurrent or Persistent thoughts, impulses or images that are experienced at some time during the disturbance as intrusive and inappropriate and that causes marked anxiety and distress.
2. Thoughts impulses or images that are not simply excessive worries about real life problem.
3. Attempt to ignore or suppress such thoughts or impulses or to neutralize them with some other thought or action.
4. Recognition that the obsessional thoughts, impulses or images are a product of one's own mind, not imposed from without as in thought insertion.

**Compulsions are defined as follows (2) :-**

1. Repetitive behaviours or mental act that the person feels driven to perfrom in response to an obsession or according to rules that must be rigidly applied.
2. Behaviours or mental act aimed at preventing & reducing distress or preventing some dreaded events or situations Those behaviours or mental acts are either unconnected realistically with what they are designed to neutralize or prevent or clearly excessive.

   Obsessions are usually anxiety provoking whereas compulsions are usually anxiety relieving. Most common obsession are repetitive thoughts of violence, contamination & doubt. Typical compulsions are hand washing, counting & checking.

**Epidemiology**

OCD is the fourth most common psychiatric diagnosis after phobias, substance related Disorders and major depressive Disorder.

The life time prevalence of OCD in the general population is estimated at 2 to 3 percent. The prevalence of OCD among children & absolent appears to be as high as among adults.

Both men and women are equally likely to be affected with slight female preponderance. During adolescence, boys are more commonly affected than girls. The mean age of onset is about 20 year although men have a slightly earlier age of onset (mean about 19 years) than woman (about 22 year). (3)

Overall the symptoms of about 2/3rd of affected persons have an onset before age 25 and the symptoms of fewer than 15 percent have an onset after age 35. (4)

Single persons are more frequently affected with OCD than married person, which reflect the difficulty of the person with this disorder in maintaining a relationship OCD occurs. less often among blacks than among whites. (3)

The relationship between OCD and obsessive-compulsive personality disorder has been a focus of debate. It appears that obsessive compulsive personality disorder is not a prominent risk factor for developing OCD as the prevalance of obsessive compulsive personality disorder among patient with

OCD is not far from its prevalence in other psychiatric disorder.

**Comorbid illness :**

Patient with OCD are commonly affected by other mental disorder. The life time prevalance for major depressive disorder in person with OCD is about 67 percent and for social phobia about 25 percent. (5)

Other common comorbid psychiatric diagnoses in patient with OCD include alcohol use disorder. Generalised anxiety disorder, specific phobia, panic disorder, eating disorder and personality disorder. (6)

**History :**

OCD was first described in the psychiatric literature by Jean Etienne Dominique Esquirol in 1838. By the end of the 19th century it was generally regarded as manifestation of melancholy or depression.

By the beginning of 20th century theories of obsessive compulsive neurosis shifted towards psychological explanations. Pierre janet reported successfull treatment of rituals with behaviour technique.

But with Sigmund Freud's (7, 8, 9) writing on psycho analysis, OCD came to be conceptualised as resulting from unconscious conflicts and from the isolation of thoughts and behaviours from their emotional antecedents. In Freud's view, the patient's mind responded maladaptively to conflicts between unacceptable, unconscious sexual or aggressive id impulses and the demand of conscience and reality. It regressed to concern with controls and to the mode of thinking characteristics of anal sadistic stage of psychosexual development, ambivalence, which produced doubting, and magical thinking which produced superstitious compulsive acts. The ego marshalled certain defenses; intellectualization and isolation (warding off the affects associated with unacceptable ideas & impulses) undoing (carrying out compulsion to neutralize the offending ideas & impulses) and reaction formation (adopting character trait exactly opposite of the feared impulses). The imperfect success of these defences gave rise to OCD symptoms of anxiety preoccupation with dirt or germs and fear of acting on unacceptable impulses.

As a result of these theories, treatment of OCD turned from attempts to modify the obsessional symptoms themselves towards the resolution of the unconscious conflicts presumed to underlie the symptoms. With the rise of behaviour therapy in the 1950 & learning theories which had proved useful in dealing with phobias were applied to OCD.

Over the last few years research on the biology of OCD has accelerated, with ongoing studies of pharmacological agents, neurosurgical treatments, brain imaging, genetics, neuropsychological dysfunction and the association of OCD symptoms with tourette disorder and other possible related illness such as trichotillomania and body dysmorphic disorder. Theories of basal ganglia and frontal lobe dysfunction have been developed that lead to testable hypotheses about the underlying pathophysiology of OCD. (10)

**Classification of OCD according to ICD - 10**

**Diagnostic Guidelines according to ICD - 10**

For a definite diagnosis obsessional symptoms or compulsive acts, or both, must be present on most days for at least 2 successive weeks and be a source of distress or interference with activities.

The obsessional symptoms should have the following characteristic :-

(a) They must be recognised as the individual's own thoughts or impulses.

(b) There must be at least one thought or act that is still resisted unsucessfully, even though others may be present which sufferer no longer resist.

(c) The thought of carrying out the act must not in itself be pleasurable.

(d) The thoughts, images or impulses must be unpleasantly repetitive.

**ICD Code :**

F42 Obsessive compulsive Disorder

F42.0 Predominant obsessional thought or rumination

F42.1 Predominantly compulsive acts (Obsessional rituals)

F42.2 Mixed Obsessional thoughts & acts

F42.9 Obsessive - compulsive Disorder unspecified.

**F42.0 Predominantly obsessional thoughts or rumination :-**

These may take the form of ideas, mental images or impulses to act. They are very variable in content but nearly always distressing to the individual.

**F42.1 Predominantly compulsive acts (Obsessional rituals)**

The majority of compulsive acts are concerned with cleaning (Particularly hand washing), repeated checking to ensure that a potentially dangerous situation has not been allowed to develop or orderliness and tidiness underlying the quart behavious is a fear, usually of danger either to or caused by the patient and the ritual act is an ineffectual or symbolic attempt to avert that danger.

Compulsive ritual acts may occupy many hours every day and are sometimes associated with marked indecisiveness and slowness.

**F42.2 Mixed obsessional thoughts & acts :-**

Most obsessive compulsive individuals have elements of both obsessional thinking and compulsive behaviour.

**Diagnostic criteria of OCD According to DSM - IV - TR**

**(A) Either obsession or compulsion (obsessions as defined by (1), (2) & (3) & (4)**

(1) Recurrent, presistent thoughts, impulses or images that are experienced as intrusive and inappropriate and that causes marked anxiety & distress.

(2) The thoughts, impulses or images are not simply excessive worries about real life problems.

(3) The person attempts to ignore or suppress such thoughts, impulses or images or to neutratize them with some other thoughts or action.

(4) The person recognizes that the obsessional thoughts, impulses or images are a product of his or her own mind.

**Compulsion as defined by (1) and (2)**

(1) Repetitive behavious or mental act that person feels driven to perform in response to an obsession or according to rules that must be applied rigidly.

(2) The behaviour or mental act are aimed at preventing or reducing distress or preventing some dreaded events or situation. However, these behaviours or mental act either are not connected in a realistic way with what thay are designed to neutralize, prevent or clearly excessive.

(B) At some point during the course of the disorder the person has recognised that the obsession or compulsion are excessive or unreasonable. (This does not apply to children).

(C) The obsession or compulsion causes marked distress, are time consuming (take more than 1 hr. a day) or significantly interfere with person normal routine, occupational or (academic) functioning or usual social activities or relationship.

(D) If another axis I disorder at present, the content of the obsession or compulsion is not restricted to it (eg. preoccupation with food in presence of an eating disorder, hair pulling in the presence of trichotillomania, concern with appearance in the presence of body dysmorphic disorder, preoccupation with drugs in presence of a substance use disorder, preoccupation with having serious illness in the presence of hypochondriasis, preoccupation with sexual urges or fantasise in presence of paraphillias or guilty ruminations in the presence of major depressive disorder.

(E) The disturbance is not due to the direct physiological effects of a substance (eg. a drug of abuse, a medication) or general medical condition.

**Specify if :**

**With poor insight :**

If for most of the time during the current episode, the person does not recognize that the obsessions and compulsions are excessive or unreasonable.

**Clinical features of OCD :**

Most patient with OCD have both obsessions & compulsions, upto 75% in some survey. So for example, an obsession about hurting a child may be followed by mental compulsion to repeat a specific prayer a specific number of times. Some patients have only obsessive thoughts without compulsion. Such patients are likely to have repetitious thoughts of a sexual or aggressive act that is reprehensible to them.

Obsessions and compulsions have certain features in common. An idea or an impulse intrude itself insistently and persistently into a person's conscious awareness. A feeling of anxious dread accompanies the central manifestation and frequently lead the person to take counter measure against the initial idea or impulse. The obsession or the compulsion is ego alien that is, it is experienced as foreign to the person's experience of himself or herself as a psychological being. No matter how vivid and compelling the obsessions or compulsions, the person usually recognizes it as absurd or irrational. The person suffering from obsession and compulsions usually feels a strong desire to resist them.

Patient with OCD often take their complaints to physician other than psychiatrist.

**Non psychiatric clinical specialist likely to see obsessive compulsive disorder patients.**

| Specialist | Presenting problem |
|---|---|
| Dermatologist | Chapped hands, eczematoid appearance |
| Family Practitioner | Family member wahing excessively may mention checking or counting compulsion. |
| Oncologist, infectioun disease internist | Insistent belief that person has aquired immune deficiency syndrome. |
| Neurologist | OCD associated with tourctte's disorder, head injury, epilepsy, chorea, other basal ganglia lesions or disorders. |
| Neuro surgeon | Severe intractable OCD |
| Obstetrician | Post-Partum OCD |
| Pediatrician | Parent's concern about child's behaviour, usually excessive washing |
| Paediatric cardiologist | OCD secondary to sydenhem chorea |
| Plastic surgeon | Repeated consultation for "abnormal feature": |
| Dentist | Gum lesion from excessive teeth cleaning. |

**Symptoms pattern :**

The presentation of obsession and compulsion is heterogeneous in adults and in children and adolescence.

**OCD has four major symptom patterns.**

1. **Contamination :** The most common pattern is an obsession of contamination followed be washing or accompanied by compulsive avoidance or presumably contaminated object. The feared object is after hard to avoid (eg. faces, urine, dust or germs). Patient may literally rub the skin off their hands be excessive hand washing or may be unable to leave their home because of fear of germs. Although anxiety is the most common emotional response to the feared object, obsessive shame and disgust are also common. Patient with contamination obsessions usually believe that thye contamination is spread from object to object person to person by slightest contact.
2. **Pathological doubt :** The second most common pattern is an obsession of doubt followed by a compulsion of checking. The obsession ofter implies some danger of violence (eg. forgetting to turn off the stove or not locking a door). The checking may involve multiple trips back into home to check stove for example. The patient have an obsessional self doubt and always feel guilty about having forgotten or committed some thing.
3. **Intrusive Thoughts :** In the third most common pattern, there are intrusive obsessional thoughts without a compulsion. Such obsessions are usually repetitive thoughts of a sexual or aggressive act that is reprehenssible to the patients.
4. **Symmetry :** The fourth most common pattern is the need for symmetry of precision, which can lead to a compulsion of slowness. Patient can literally take hours to eat a meal or shave their faces.
5. **Other :** Trichotillomaima (compulsive hair pulling) and nail biting may be a compulsion related to OCD.

**Obsessive : Compulsive Symptoms in Adults. (3)**

| Variables | % |
|---|---|
| **Obsessions :** | |
| Contamination | 45% |
| Pathological doubt | 42% |
| Somatic | 36% |
| Need for symmetry | 31% |
| Aggressive | 28% |
| Sexual | 26% |
| Other | 13% |
| Multiple obsession | 60 |
| **Compulsions : (3)** | |
| Checking | 63% |
| Washing | 50% |
| Counting | 36% |
| Need to ask or confess | 31% |
| Symmetry and precision | 28% |

| | |
|---|---|
| Hoarding | 18% |
| Multiple comparison | 48% |
| **Course of illness (Types)** | |
| Continuous | 85% |
| Deteriorative | 10% |
| Episodic | 2% |
| Not Present | 71% |
| Present | 29% |

**Obsessive compulsive symptoms in child and adolescence patient (3)**

| Major presenting symptoms | % age reporting symptom at initial intervene |
|---|---|
| **Obsession** | |
| • Concern or Disguest with bodily wastes or secretion (urine, stool, saliva) dirt, germs, environmental toxin. | 43 |
| • Fear of something terrible may happen (fire, death or illness of loved once, self or others) | 24 |
| • Concern or need for symmetry, order or exactness | 17 |
| • Scrupulosity (excessive praying or religiousconcern out of keeping with patients back ground) | 13 |
| • Lucky or unlucky numbers | 8 |
| • Forbidden or pervasive sexual thoughts, images or impulses | 4 |
| • Intrusive non sense sounds, words or music. | 1 |
| **Compulsion :** | |
| • Excessive or ritualized hand washing, showering, bathing, tooth brushing or grooming | 85 |
| • Repeating rituals (eg. going in and out of door, up & down from chair) | 51 |
| • Checking door, locks, stove, appliances, car brakes | 46 |
| • Cleaning and rituals to remove contact with contaminants | 23 |
| • Touching | 20 |
| • Ordering & arranging | 17 |
| • Counting | 16 |
| • Hoarding & Collecting | 18 |

**Scales of Evaluation & Assessment**

The initial assessment of patient with OCD should include a detailed description of type, severity and onset and identification of target symptoms. Comorbid conditions frequently complicating the treatment of OCD include depression, other anxiety disorder, substance use disorder, schizophrenia, bipolar disoder and personality disorder. OCD is probably the most difficult anxiety disorder to treat and has the highest rate of non-response.

**Scales of assessment :**

1. The Y-BOCS, a 10 items clinician administered scale has become the most widely used rating scale for OCD (11). The YBOCS is designed to rate symptom severity, not to establish a diagnosis. The clinician should first ask the patient to complete the Y-BOCS symptom checklist and should review the completed checklist with the patient. The checklist can also be used to select target symptoms for treatment.

   The Y-BOCS provides 5 rating dimensions for obsession and complusion : a) time spent or occupied b) interference with functioning or relationship c) degree of distress d) resistance & e)control. Each items are scored on a four point scale from 0 = "No symptoms to 4 = "extreme symptoms. The sum of five items is a severity index for obsession and sum of last five items is a severity index for compulsion. A translation of total score into an approximate index of overall severity is :-

| | | |
|---|---|---|
| 0-7 | = | subclinical |
| 8-15 | = | mild |
| 16-23 | = | moderate |
| 24-31 | = | severe |
| 32-40 | = | extreme |

If patient experience a 25% decrease in a Y-BOCS score it is usually estimated as mild to moderate improvement & 35-50% reduction of score regarded as moderate to marked improvement.

The Y-BOCS reliability, validity and sensitivity to change are well established. A computer administered version was well received by patients. (12)

**2. Leyton obsessional Inventory (LOI) (13)**

- Evaluates presence and severity of obsessional symptoms.
- Is a 69 question scale dealing with the subjective assessment of obsessional traits and symptoms.
- A strength of the scale included its comprehensive evaluation of specific obsessional symptoms however a number of not uncommon symptoms such as obscene or violent thought are not assessed.

**Psycopharmacological treatment :**

Findings that, medications that increase serotonergic transmission in the CNS are efficacious in OCD revolutionized treatment and suggested that the pathophysiology of OCD is related to changes in serotonin function. Subsequently, a series of these medication, such as clomipramine, fluvoxamine, fluoxetine, sertraline, paroxetine & citalopram have been shown in double blind controlled trials to alleviate the symptoms of OCD. Small open label trials (14) also suggest efficacy for high doses of the serotonin norepinephrine reuptake inhibitor, venlafaxine. Together, these studies suggest that :

- 40-60% of patients treated with an SRI, will be much or very much improved.
- Treatment naive patients are more likely to respond to an SRI trail than patients who have failed a prior SRI trails.
- Patients who don't respond to one SRI often respond to another.
- In treating OCD, the effective doses of SRI are often higher than those used to treat depressive disorders.
- Most patients do not experience substantial improvement (a Y-BOCs decrease of 35%) before the sixth wk of treatment)
- Patinets who don't respond to lower SRI doses often respond to higher ones.

- An adequate SRI trails require 10-12 wks including atleast six wks at the maximum tolerated dose.
- The SSRIs are better tolerated than clomipramine, but each to these drugs is tolerated by the vast majority of patients.

**Dose regimens for primary anti OCD drugs.**

| | Medication | Daily Dose (15) | | |
|---|---|---|---|---|
| | | Usual Starting dose (mg.) | Aug target (mg.) | Usual maximum (mg.) |
| 1. | Citalopram | 20 | 40-60 | 60 |
| 2. | Clomipramine | 25-50 | 100-250 | 250 |
| 3. | Fluxetine | 20 | 40-60 | 30 |
| 4. | Fluvoxamine | 50 | 200 | 300 |
| 5. | Paroxetine | 20 | 50 | 60 |
| 6. | Sertaline | 50 | 150 | 225 |

An FDA indication for OCD in adults has been granted for fluvoxamine, fluoxetine, paroxetine and sertraline. The anti OCD efficiency of fulvoxamine and sertraline have been confirmed in children. (16)

**Long term treatment :**

Important clinical questions remain unanswred regarding the long term management of patients who have responded to an acute drug trails. In clinical practice, most patients continue taking medicines for at least one year, some seem to require indefinite treatment. The relapse rate with abruptdiscountination of medication is high in OCD, as much as 90% in some studies (17). It has not yet been established in a controlled study whether a gradual taper of medication over a longer period (e.g. 6 month or more) as is usually done in clinical practice, produces a lower relapse rate.

Adverse events have been associated with abrupt discontinuation of clomipramine and the SSRIs: paroxetine fluvoxamine and sertraline. Relatively fewer reports of withdrawal syndrome following abrupt cessation of fluoxetine may reflect the long half life of the parent drug and its metabolite norfluoxetine.

**Definition of treatment resistant**

Term Treatment resistant is generally applied to those patients who have not shown a satisfactory response to adequate trials to at least two SRIs (16).

The term treatment refractory or intractable connote greater degree of treatment resistance, as reflected in failure to respond to a variety of anti OCD treatment strategies (including combination of agents) as well as behaviour therapy (16).

Most recent studies have used change scores on Y-BOCs to define resonse (11, 12).

Most large scale drug trials have used a 25% or greater decrease from baseline in Y-BOCs score to define responder.

**Reasons for treatment Resistance**

1. The adequacy of the acute drug trials must be evaluated. Clinical trails have not found a direct relation between SRI plasma levels and response in OCD (18).

Possible reasons for variability in drug response include effects of co-morbid conditions, differences in underlying pathobiology and psychosocial factors that can affect treatment.

Evidence indicate (19) that certain co-morbid conditions are associated with a lower treatment

response rate. OCD patients with schizotypal personality disorder appear to have relatively worse outcome (20). Another study suggests that the response rate to SRI monotherapy is lower in OCD patients with chronic tic discorder (21). Patients with a clinical subtype of OCD referred to as primary obsessional slowness, pathological doubling and checking seem to be less responsive to treatment.

**Combination strategies :**

The patient who has had a partial response to SRI monotherapy or failed to show any improvement following two consecutive trials with different SRIs is a candidate for combination treatment.

**a). Another SRI**

The advantage of dual SSRI therapy over a higher dose of a single agent is difficult to explain based on our current understanding of their pharmaco dynamic properties.

**b). SRI & NRI**

Currently available studies do not show any significant difference when compared with patient treated only with one SRI (22).

**c). SRI & Behavior therapy**

It is believed to be the most broadly effective treatment for OCD (23).

**d). SRI & Agent - that may alter serotonin function.**

- To date rationale for most drug combination stategies has been to add agents that may modify serotonergic function, such as, tryptophan, fenfluramine, lithium busprione to ongoing SRI therapy.
- Although the overall yield is low in OCD, individual patient particularly those with marked depressive symptoms may benefit from lithium augmentation (21, 24, 25, 26).
- In open label studies, addition of the serotonin type IA agonist buspirone to ongoing fluoxetine treatment in patients with OCD led to greater improvement in OC symptoms than did continued treatment with fluoxetine alone (21, 26, 27).
- Some clinicians believe that addition of clonazepam to ongoing SRI therapy is helpful in reducing symptom of OCD, but substituation by published reports is limited (19, 28).
- In clinical practice low dose trazodone is often prescribed as a sedative, hypnotic in conjunction a activating SRIs such as fluoxetine (29).
- Potentiating action of pindolol to a antiderpesant has also been used to treat OCD patient, but overall, the pindolol addition had no significant group effects (30 to 38).
- In ongoing studies at NIM gabapentin added to an SRI had produced mild to moderate improvement in anxiety, depression and OCD symptoms (39).
- Evidence suggests that conjoint SRI and conventional antipsychotic treatment may be beneficial in a subsets of patients. (like OCD with chronic tic disorder) (40, 41)
- Experience with atypical antipsychotic is too early to draw conclusion about indication for use in OCD (42, 43).

**Dose regimens for additional drugs used OCD.**

| Drug | Daily Dose | | |
|---|---|---|---|
| | Usual starting dose (mg.) | Aug target dose (mg.) | Maximum dose (mg.) |
| 1. Buspirone | 20 | 60 | 90 |
| 2. Clonazepam | 0.5 | 1-3 | .4 |
| 3. Gabapentin | 300 | 1800-2400 | 3600 |
| 4. HPD | 0.25 | 0.25-6 | 6 |
| 5. Lithium | 300 | (adjusted serum level) | 0.6-1.2 |
| 6. Lorazepam | 0.5 | 1-6 | 6 |
| 7. Pimozide | 0.5 | 1-6 | 6 |
| 8. Risperidone | 0.5 | 0.5-5 | 6 |
| 9. Venlafaxine | 37.5 | 225-375 | 375 |

**Other treatment**

a. A variety of alternative drug treatment have been used. IV clomipramine is the only treatment supported by a reasonable degree of emperical evidence. Several open lable trials suggested that IV clomipramive may be helpful in patients refractory to oral clomipramine (44, 45).

b. 4 weeks of adjuvant triidothyronine treatment was ineffective in 16 patients with OCD who had a partial response to clomipramine (26).

c. 4 weeks of intranasal administration of oxytocin led to improvements of OC symptoms but its side effects are profound (46).

d. Recent studies on the therapeutic use of the second messenger precursor inositol have been extended to OCD (47).

**Non pharmacological / Biological Treatment :**

- It includes ECT, neurosurgery sleep deprivation, phototherapy and repetitive transcranial magnetic stimulation (r TMS).
- ECT generally is viewed as having limited benefit in OCD despite isolated reports of its success in treatment resistance cases.

  In some instances, the favourable response to ECT was short lived. ECT certainly should be considered in the treatment of depressive symptom in the treatment refractory patient with OCD at risk for suicide (48, 49).
- Recent evidence suggests that stereotactic lesion of the cingulum bundle (cingulotomy) or anterior limb of the interal causule (capsulotomy) may produce substantial clinical benefit in some patient with OCD without causing appreciable morbidity (50).

At present, stereotactic neurosergery, should be viewed as the option of last resort in the gravely ill patient with OCD who has not responded to well documented adequate trials over a 5 year period with several SRIs (including clomipramine), exposure and response prevention, atleast two combination strategies, and MAOI, a novel antidepressant (venlafaxine) and ECT (if depression present).

**Psychotherapy**

1. Behavior Therapy
   - Behavioral treatment of OCD involve two separate components.
   a. Exposure procedures that aim to decrease anxiety associated with obsession.

b. Response prevention techniques that aim to decrease the frequency of rituals or obsessive thoughts.

**Exposure Techniques** - include systemic desensitization with brief imaginal exposure & flooding (in prolonged exposure to the real life ritual evoking stimuli causes profound discomfort). The ultimate goal of exposure techniques is to decrease the discomfort associated with the eliciting stimuli through habituation.

Response prevention requires patients to face feared stimuli without resorting to excessive hand washing or to tolerate doubt without succumbing to excessive checking.

The psychoeducation and support of family members can be pivotal to the success of the behavior therapy because family dysfunction is prevalent and the majority of parents of spouses accomodate to or are involved in the patients rituals.

The proprotion of clinical responder defined as those patients who showed atleast 30% improvement with treatment, 33% for response prevention, 55% for exposure and 90% for combined treatment (51, 52).

**Predictors of poorer outcome with BT of OCD include (53) :**

- Initial depression
- Initial OCD severity
- Longer duration
- Lower motivation for treatment.

**Cognitive therapy**

Another modality that has more recently been advocated in the treatment of OCD is cognitive therapy, which centers on cognitive reformulation of themes related to the perception of danger, estimation of catastrophe, expectation of anxiety and its consequences, excessive responsibilities.

One controlled study found cognitive therapy's effectiveness is similar to that of exposure and response prevention in treating OCD (52).

**Combination Therapy**

It is commonly used and recommended in the treatment of OCD. Unless symptoms are mild or subject is highly motivated to begin with CBT techniques, a common approach used in clinical practice is to start out with medication, attain a degree of improvement that will allow better utilization of CBT and then possibly attempt some degree of medication tapered once CBT has been mastered and observed to be effective.

Patient who remained symptomatic with a 12 weeks course of a SSRI received a course of exposure & ritual prevention and demonstrated a 50% decrease in their OCD symptoms (50, 54).

**Obsessive - compulsive disorder treatment planning guidences (4)**

1. Assess the patient's degree of insight and motivation for treatment.
2. Assess and treat comorbid mood, anxiety and substance use disorder.
3. Assess for comorbid tic disorder and schizotypal personality disorder. If either is present, successful pharmacotherapy may require a neuroleptic combined with a SRI
4. Identify & explore OCD symptoms (with the YBOCS symptom checklist).
5. Measure baseline severity of OCD (YBOCS).
6. Educate the patient and concerned others about OCD and its treatment.
7. Consider trial of exposure & response prevention (ERP), an SRI or conbined ERP and SRI treatment

(depending on the patient's needs, preference, capacities, situation and history). An adequate SRI trial requires 10-12 weeks and at least six weeks at maximum tolerated doses.

8. Maintain effective pharmaco-therapy for long term, but consider tapering the dose slowly after stable improvement has been achieved.
9. For patient with a partial response to pharmacotherapy, consider augmentation with ERP or another augmenting agents.
10. For patients with partial response with ERP, consider adding an SRI and/or more intensive or modified ERP, including cognitive techniques.
11. Consider the need for couple or family therapy to address complicity.
12. Institute psychotherapy for functional deficits and life issues.
13. For treatment of refractory patient's consider augmentation as follows : inpatient treatment, clonazepam monotherapy, phenelzine, IV clomipramine, other augmenting or experimental agents and after exhausting options, neurosurgery.
14. Arrange for maintenance treatment and utilize relapse prevention strategies.

**CLINICAL PRACTICE GUIDELINES**

**Guidelines :**

1. Selecting the initial treatment strategy.
2. Selecting specific CBT.
3. Selecting a specific medication strategy.
4. Strategy for the treatment - Refractory patient.
5. Treatment strategies for the maintenance phase.
6. Minimizing medication side effects.
7. Treatment of OCD complicated by co morbid psychiatric illness.
8. Treatment of OCD complicated by co-morbid medical illness or pregnancy.
9. Pharmacotherapy for OCD spectrum Conditions.

The recognition & accurate diagnosis of OCD are the first step in the proper treatment of this condition.

The initial assessment of patients with OCD should include

- Detailed Description of type.
- Severity
- Indentification of target symptoms
- Any co-morbidity

After making confirm diagnosis of OCD, severity of disorder should be assessed by instituting Y-BOCS.

- Mild = (Score 8-15) - Cause distress but not necessary dysfunction; help from other is usually not required to get through the day.
- Moderate = (16-23) - Causes both distress & functional impairment.
- Severe (24-31) to extreme (32-40) - Causes serious functional impairment requiring significant help from others.

**Table 1 : Treatment initiation according to severity & age of onset.**

| | Adult OCD | Adolescent OCD | Prepubertal OCD |
|---|---|---|---|
| Mild | CBT* | CBT | CBT |
| Moderate | CBT or PT **** - Alone or CBT + PT | CBT (Add Min. dose PT. if reqd. for short period) | CBT (Add Min dose PT, if reqd. for short period) |
| Severe | Combined | CBT than add PT therapy necessary | CBT, than add pharmacological treatment (PT) |
| extreme | (CBT + PT) | therapy | gradually as necessary |

Source : Expert Consensus guideline serier WHO.

* Most experts usually prefer to begin the treatment of OCD pt. with either CBT alone or with a combination of CBT & medication (CBT + SRI). The likelihood that medication will be included in the recommendation various with the severity of the OCD & the age of patient.

In Milder OCD - CBT alone is the initial choice. As the severity increases, the experts are more likely to add medication to CBT as the initial treatment or to use Medication alone. In younger patients the experts are more likely to use CBT alone.

* CBT = Cognitive behaviour therapy.

** SRI = Serotonin reuptake inhbitors.

*** SSRI = SRI + Clomipramine

**** PT = Pharmaclogical treatment (SRI or SSRI)

**Table 2 : Specific CBT treatment strategies**

| Selecting Obsessions | | Compulsion |
|---|---|---|
| **CBT strategy** | | |
| First Line | a) Exposure Response prevention (ERP) | ERP or ERP + CT |
| | b) ERP + cognitive therapy (CT) | |
| Second Line | CT, flooding technique thought stopping | Response prevention CT, family therapy |

* **Cognitive behaviour therapy** involves the combination of behaviour therapy (ERP) and cognitive therapy. Behaviour therapy for OCD most commonly involves exposure & response prevention. Exposure capitalizes on the fact that anxiety usually attenuates after sufficient duration of contact with a feared object. Repeated exposure is associated with decreased anxiety, until after multiple trails, the patient no longer fears contact with the specifically targeted stimulus (55, 56).

In order to achieve adequate exposure, it is usually necessary to help the patient block the rituals or avoidance behaviour.

Cognitive therapy (CT) which may be added to ERP addresses such things as faulty estimation of

danger or the exaggerated sense of personal responsibility often seen in OCD patients (57, 58).

* It is found that CT may be more useful for pathological doubt, aggressive obsessions, scrupulosity or other OCD beliefs as contrasted to "urge" like symptoms such as arranging or touching rituals (59).
* Patient with little insight donot do well with any of the specified treatment interventions. CT may help sharpen insight.

**Summary :** It is recommended that ERP as the optimal behaviour psychotherapy for OCD while cognitive therapy may provide additional benefit by directly targeting distorted belief & by improving compliance with ERP.

It is recommended that the treatment should being with weekly individual CBT sessions and may also use between session homework assignments. A total of 12-20 sessions are proposed to be appropriate number of CBT treatments for the typical patients.

**Table 3 - Pharmacological treatment strategies :**

| Selecting a Pharmacological Drugs agent for OCD | |
|---|---|
| First Line | SRI's (Fluoxetine, Fluoxamine Paroxetine, Sertraline) Citalopram? |
| Second Line | Clomipramine |
| Third Line (60, 61, 62) | Venlafaxine Clonazepam MAOI |

The first line in pharmacological treatment for OCD is a 10-12 week trial with an SRI in adequate doses (15). Which SRI to prescribe initially is based on the expert side effects profile & Pharmacokinetic considerations. The dose of SRI can be increased incrementally every 3-4 days in outpatient (even faster in inpatient). When a patient is having a partial response to an average dose of an SRI, it is suggested to increase the dose to its maximum within 5-9 weeks from the start of treatment.

**Further recommendations :**

1) If there is no response after 4-6 weeks at a maximum dose - switch to another SRI or clomipramine.
2) SRI are more likely to be helpful for pathological doubt, aggressive obsessions, urges & mental rituals than for slowness, hoarding and tic-like symptoms (15).
3) Other treatment strategies include venlafaxine, clonazepam & MAOIs - considered III line & may be worth a try when the SRIs themselves have not proven helpful.

**Treatment Resistance :**

For the purpose of biological therapies the term treatment resistance is generally applied to those patients who have not shown a satisfactory response to adequate trials of at last two SRI's but most of the large scale drug trials have used 25% or greater decrease from baseline in Y-BOCs score to define a responder.

**Reasons for Treatment Resistance :**

1. Inadequate Drug trials.
2. Poor treatment compliance.

3. Comorbid conditions like -
   - Schizotypal personality
   - Tic Disorder
   - Schizophrenia
   - Depression etc.

**Recommendations :**

- Ensure proper treatment compliance.
- It is recommended to add SRI when patient has not responded to CBT alone;
- When patients have not done well on medication add CT still no response - switch to another SRI. Thus combined therapy is recommended for most patients who have not responded to an initial trial of either CBT or medication alone.
- If patient does not respond to combined therapy then following strategies can be applied-
  1. Switch from SRI to clomipramine or add clomipramine along with SRI.
  2. Provide more CBT sessions (e.g. twice a week).
  3 Add new CBT (eg. Desensitization, Thought stopping. flooding technique, habit reversal, relaxation etc.).
  4. Augmentation with third line medication or lithium.
  5. Treat comorbid conditions if present.
     a) If anxious - Add Clonzepam or buspirone
     b) If depressed - Add lithium
     c) If Delusional/Tics - Add Antipsychotics
  6. If patient still does not respond and have extremely severe & non remitting OCD - Intravenous clomipramine (63, 64, 65) or ECT (48, 49) or psychosurgery {e.g. Cingulotomy (50, 66, 67), internal-capsulotomy} may sometimes be considered.

**Maintenance Treatment :**

Once the patient have responded to the acute phase of treatment it is important to consolidate treatment gains during the maintenance phase but little is known currently about how long medication should be continued in OCD. The relapse rate with abrupt discontinuation of medication is very high.

**Recommendation :**

1. Monthly follow-up visits for atleast 6 months.
2. Booster CBT session.
3. Gradual tapering of medication & maintaining the patient at lower doses than those required to produce an initial treatment response.
4. Life long maintenance if there is 2 severe relapses or four or more mild to moderate relapse after discontimation of treatment.

**Minimizing Side effects :**

Since the overall efficacy of different SRI's is on an average equal, tailoring the side effect profile to the patient's needs & preferences is an important way of selecting among them. In general SRI's are generally better tolerated than clomipramine.

Side effects are usually dose & time dependent. More severe side effects are associated with larger doses & faster escalation of doses.

Tolerance often develops over 6-8 weeks. Tolerance may be more likely to occur with some side effect (e.g. Nausea) but not with other side effect (e.g. akathesia).

**Treatment of OCD Complicated by Co-Morbid Medical Illness of Pregnancy**

It is recommended to use CBT alone for patients with OCD who are pregnant or who also have medical complications such as cardiac or renal disease (68).

When the risk of OCD begins to rival the risk of the medical condition (e.g. a pregnant mother who will not eat because of contamination fears), then combined CBT & medication may become necessary.

**Pharmacotherapy for OCD Spectrum Disorder :**

| Disorder | Treatment |
|---|---|
| 1. Tourette's Disorder | Antipsychotics; Clonidine |
| 2. Hypochondriasis | SSRI, TCAs |
| 3. Body dysmorphic disorder | SSRI's |
| 4. Trichotilomania | SSRI |
| 5. Nail biting | SSRI ; Naltrexone |
| 6. Pathological Jealousy | a) Delusional - Antipsychotics<br>b) Non-delusional SSRI |
| 7. Kleptomania | SSRI; Lithium; Valproate |
| 8. Pathological gambling | SSRI; Mood stablizers. |

**APPENDIX - 1**

**Medical conditions associated with obsessive and compulsive symptoms**

***Genetic disorder***
Tourette's syndrome

***Infection***
Encephalitis lethargica (Von Economo's encephalitis)
Human immuno-deficiency virus (HIV)

***Autoimmune disorder***
Syndenham's chorea

***Seizure disorders***
Partial complex seizures
Frontal lobe seizures
Tonic-clonic seizures (grand mal)

***Brain tumor***

***Head trauma***

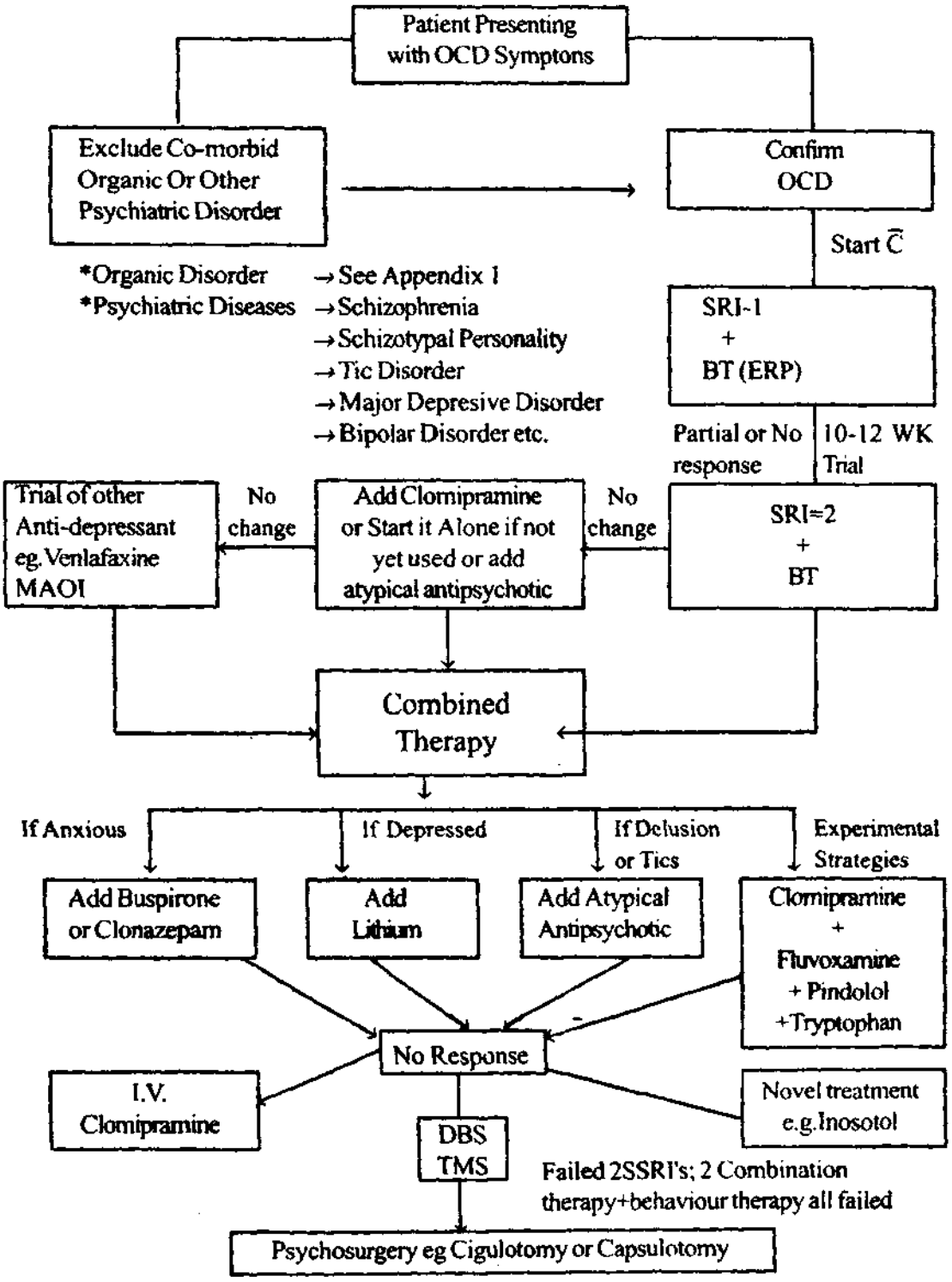
***Cerebrovascular accident***

***Neurodegenerative disorder***
Parkinson's disease and Levodopa
Huntington's disease
Creutzfeldt-Jakob disease
Pick's disease and other frontal lobe degenerations
Neuroacanthocytosis

***Endocrime/metabolic disorder***
Hypoparathyroidism
Acute Intermittent Porphyria
Diabetes Insipidus, (Vasopressin and Oxytocin)

***Toxin or drug***
Carbon monoxide poisoning
Anoxia
Wasp venom
Manganese poisoning
Clozapine
Risperidone
Nefazodone
Stimulants

# FLOW CHART


Patient Presenting with OCD Symptons
Exclude Co-morbid Organic Or Other Psychiatric Disorder
Confirm OCD
Start C
*Organic Disorder → See Appendix 1
*Psychiatric Diseases → Schizophrenia
→ Schizotypal Personality
→ Tic Disorder
→ Major Depresive Disorder
→ Bipolar Disorder etc.
SRI-1 + BT (ERP)
Partial or No response
10-12 WK Trial
SRI=2 + BT
No change
Add Clomipramine or Start it Alone if not yet used or add atypical antipsychotic
No change
Trial of other Anti-depressant eg. Venlafaxine MAOI
Combined Therapy
If Anxious
If Depressed
If Delusion or Tics
Experimental Strategies
Add Buspirone or Clonazepam
Add Lithium
Add Atypical Antipsychotic
Clomipramine + Fluvoxamine + Pindolol +Tryptophan
No Response
I.V. Clomipramine
DBS TMS
Novel treatment e.g. Inosotol
Failed 2SSRI's; 2 Combination therapy+behaviour therapy all failed
Psychosurgery eg Cigulotomy or Capsulotomy

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