Treatment guidelines for the use of Tapering Strips

1. Introduction: what are Tapering Strips

Tapering Strips are a means by which patients can gradually and steadily reduce their dosage of certain psychotropic medications. This approach reduces or eliminates many of the common withdrawal symptoms that are experienced when a psychotropic medication is abruptly stopped or the dosage reduced too quickly.

Additionally, the use of Tapering Strips puts control of withdrawal in the hands of the patient and they, together with their medical professional, can use shared decision making to design the best approach to withdrawal or dosage reduction.

2. How to use this guideline

This guideline is provided to help doctors and patients together assess the suitability of Tapering Strips as a means to gradually reduce medication dosage. This brief explanation provides an overview of the process. More detailed, supporting information is provided later in the document.

3. Brief summary of the steps to take

STEP 1

Firstly, review the following list, if one or more of the following statements are true, the use of Tapering Strips is suggested as the next step:

Has the patient experienced:

- Withdrawal symptoms and/or rebound effects suspected to have been caused by a fast reduction or abrupt discontinuation of their psychotropic medication.
- Anxiety or worry about having to stop or reduce their medication (e.g. in the case of patients who also have an anxiety disorder).
- One of more prior failed attempts to reduce or stop their medication.
- Symptoms that are different to those that the patient originally required the medication for (for example, the patient originally reported low mood, but now reports nausea and dizziness)
- Use of the medication for 6 months or longer, at a dose of at least 150% of the daily recommended dose.

STEP 2

Next, consult the list of the medications that can can be tapered using Tapering Strips. If the relevant Tapering Strip is available, proceed to step 3. The complete list can be found at www.taperingstrip.org. On 11 july 2017, the following Tapering Strips were available:

- **Antidepressants**
  - amitriptyline, bupropion, citalopram, fluvoxamine, fluoxetine, mirtazapine, paroxetine, sertraline, venlafaxine
- **Antipsychotics**
  - aripiprazol, clozapine, haloperidol, olanzapine, quetiapine
- **Sedatives**
  - clonazepam, diazepam, lorazepam, oxazepam, temazepam, zopiclone
- **Other**
  - lithium, tramadol
**STEP 3**

Determine the starting dosage (usually the same dosage that the patient is currently taking). Determine the time taken to reduce. This will vary by patient and the doctor and patient together will need to take account of many factors, for example:

- The pace of reduction at which the patient feels comfortable.
- If the patient has to work or has other responsibilities such as caring for children.
- If other medications are also being taken.
- If there are any other health issues present that may interfere with the withdrawal process.
- Other factors that either the doctor or patient may feel are applicable.

**STEP 4**

Select the combination of Tapering Strips that will achieve the gradual reduction agreed between the patient and the doctor in Step 3.

Provide simple written instructions that are agreed with the patient and that the patient feels confident they can follow.

Provide the patient with a Tapering Strip monitoring form (to be created) that will provide the basis of regular discussions on progress and how the patient feels about the process.

**STEP 5**

Arrange regular (at least monthly) review sessions to discuss the tapering process. If an adjustment or a pause in the tapering is necessary, it can be discussed by the patient and the doctor and agreed here.

At the end of the tapering period, we would be grateful if the patient and doctor would complete the Tapering Strip evaluation form (to be created) for our research and future improvement work.
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Additional supporting detail

Justification: why use Tapering Strips

The difficulties that can occur when stopping or reducing the dosage of many antidepressant and antipsychotic medications needs careful management. The reaction of a patient to medication withdrawal is difficult to predict and that uncertainty has to be managed by the doctor and the patient with little or no formal guidance.

What works well for one patient can be disastrous for another, which means that a one-size-fits-all solution simply does not work. Current guidelines and protocols, if they exist at all, merely offer rigid, inflexible approaches that are not suited to individuals and do not take account of specific individual circumstances.

The second problem is that current tapering advice is often difficult or even impossible to follow. This is because the general recommendation is a ‘slow and gradual reduction’ but this cannot be achieved because most medications are only available in large, fixed doses (for example 10 mg, 20 mg and 50 mg). In principle, it is possible for a doctor to write a prescription which allows a pharmacist to provide tailor-made, non-standard doses, but this rarely happens and can be expensive for the patient. Despite these problems and some research being done, this problem still affects millions of patients taking psychotropic medications and creates difficulty for doctors too.

Tapering strips are a novel, practical solution to this issue. Using Tapering Strips, it is now possible for a patient to slowly and steadily reduce the dosage of their medication. Additionally the patient and doctor together can design an approach that supports the patient and gives the doctor the ability to best help and support medication withdrawal. We call this approach ‘shared decision making’.

Shared decision-making empowers patients and encourages them to take more responsibility for their own treatment. It also encourages them to participate in the solution and to work in partnership with their doctor, this leads to less blame should there be difficulties.

The principle of the tapering strip – gradual dose reduction in small steps and taking patient preferences into account – fits neatly within current recommendations in treatment guidelines. Since tapering strips can also be prescribed as part of daily clinical care, a separate guideline or protocol is not strictly necessary. Nevertheless, we believe that there is a need for such a protocol. To meet this need, we have combined the expertise of those with lived experience, with research input to write this provisional protocol which aims to support the patient and the doctor in their discussions.

This protocol should not be seen as a replacement of current treatment guidelines, but as an addition. To improve its usability, we have attempted to make it short, clear and minimised any overlap with existing guidelines.

This protocol differs from most guidelines in that it is highly explanatory, yet prescribes little. It pays special attention to current uncertainties: not only to the things doctors do know and should know, but also – and perhaps even more importantly – to what doctors and patients do not and cannot know.

This protocol also focuses on how the use of tapering strips can help to deal with these uncertainties, in the interest of both the doctor and the patient. As a person with lived experience and as member of the URC, I believe that this protocol will help to improve the quality of treatment for those who wish to stop using a psychotropic medication. It can also be used to determine the optimal dose of a drug (in many cases a lower dose) and can also improve the quality of the doctor-patient relationship.
Tapering strips have been developed by the not-for-profit foundation Cinderella Therapeutics and the User Research Centre of Maastricht University. Their development has received support from the Dutch Consensus Group on Tapering, consisting of more than 20 professors of psychiatry, and received financial support from the not-for-profit foundation MIND.

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Disclaimer

This provisional protocol has not yet been formally reviewed or commented on by guideline committees of the relevant medical societies or authorities. While we are planning for this to happen in the near future, we want to provide information to doctors and patients who want to prescribe and use the Tapering Strips now. We hope that this provisional guidance is sufficient to be referred to in guidelines that are in development for the relevant pharmacological interventions. When the relevant authorities have been consulted, this protocol will be updated and finalised. We will evaluate the use of Tapering Strips in the clinical setting as part of our research.

Support

These patient driven guidelines are supported by:

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4. https://wijzijnmind.nl/
Treatment protocol for the use of tapering strips

Introduction
Tapering Strips are a means by which patients can gradually and steadily reduce their dosage of certain psychotropic medications. This approach reduces or eliminates many of the common withdrawal symptoms that are experienced when such a medication is abruptly stopped or the dosage reduced too quickly.

Additionally, the use of Tapering Strips puts control of withdrawal in the hands of the patient and they, together with their medical professional, can use shared decision making to design the best approach to withdrawal or dosage reduction.

Tapering strips can be used as a tool for stopping or reducing the dosage of a psychotropic medication if the patient has experienced one or more of the following:

- Withdrawal symptoms and/or rebound effects suspected to have been caused by a fast reduction or abrupt discontinuation of their psychotropic medication.
- Anxiety or worry about having to stop or reduce their medication (e.g. in the case of patients who also have an anxiety disorder).
- One of more prior failed attempts to reduce or stop their medication.
- Symptoms that are different to those that the patient originally required the medication for (for example, the patient originally reported low mood, but now reports nausea and dizziness)
- Use of the medication for 6 months or longer, at a dose of at least 150% of the daily recommended dose.

The principle of the tapering strip is dosage reduction in small steps. The use of tapering strips as part of pharmacotherapeutic treatment is in agreement with current guidelines. These guidelines call for discontinuing or gradually reducing the dose of drugs which are known to lead to withdrawal or rebound symptoms after abrupt discontinuation or if the dose is reduced too quickly.

This protocol consists of the following parts:

1. What is a tapering strip?
2. Combining Tapering Strips for flexibility
3. Recognising relapse
4. Stabilisation
5. Dose optimisation
1. What is a tapering strip?

Figure 1A shows how gradual dose reduction in a tapering strip is made possible by combining tablets of different strengths. Figure 1B shows an example of a tapering schedule for dose reduction from 20 mg to 5 mg.

A tapering strip consists of 28 daily doses packaged in a strip of individually sealed pouches, as shown in Figure 1C. Each plastic pouch is labelled with a number. The patient starts a strip with pouch number 028, and ends the strip with pouch number 001. The patient opens the next consecutively numbered pouch each day and by doing this, the dosage reduces with no additional effort needed by the patient. The number on a pouch tells the patient the number of days remaining before the end of the tapering strip is reached.

Each daily dose can be different and never consists of more than 5 tablets. As a rule of thumb, the lowest available daily dose for a drug is chosen to be equal to about 5-10% of the lowest registered standard dose. So while the smallest possible dose reduction equals the lowest available dose (in Figure 1 this is 0.5 mg), the average dose reduction per day can be much lower, as is shown in the lower panel of Figure 2.

The daily dose in a tapering strip can differ from day to day, and the main difference with currently available standard medication is that the patient does not have to do anything extra to make this possible. Current methods of trying to withdraw include pill splitting, cutting or crushing which are all error prone and can cause withdrawal effects especially for vulnerable patients and patients using multiple drugs.

When using tapering strips, all the patient has to do is to ingest all of the tablets present in a discrete pouch. This ‘strip packaging’ approach is known to improve compliance.

2. Combining Tapering Strips for flexibility

Research data are often based on groups of patients and therefore do not enable doctors to reliably predict the optimal tapering schedule for individual patients. Using a generic tapering schedule may result in few or no problems in one patient, but in severe withdrawal symptoms in another. Another consideration is that some patients want to stop as quickly as possible and are willing to tolerate withdrawal symptoms while other patients are less able to cope with withdrawal symptoms, or have had very bad past experiences with tapering.
Figure 2: Tapering strips can be combined to allow a flexible approach to withdrawal that benefits both the patient and the doctor. By combining tapering strips, a patient and doctor together can design a personalised tapering schedule which reduces or eliminates many of the problems associated with sudden dosage reductions. We call this approach ‘shared decision making’ and it puts the patient in control of their own reduction, but with the support and guidance of a medical professional.

Given these uncertainties, it is unrealistic and unreasonable to expect doctors to be able to decide on the best option for a given patient without support. In accordance with the concept of shared decision-making, where possible it is far better to ask patients to make their own judgement, advised and supported by their doctor. If done properly, being asked to make your own choice will help to improve feelings of control and to reduce feelings of powerlessness and dependence. This is of great benefit to both the patient and the doctor. Shared decision-making encourages patients to be active participants in their healthcare and reduces the potential for blame should there be difficulties with tapering and withdrawal. This increases commitment and compliance and improves the quality of the doctor/patient relationship.

Tapering can be seen as a journey the patient makes, with the doctor as a guide who helps to adapt treatment if necessary. Having a clear and coherent approach makes it easier for a patient to understand the tapering process and for the doctor to explain what might happen and what can be done. Discussing the different options and having their questions answered should enable patients to make informed choices.

To help patients make these choices, it is essential to make multiple tapering strips available for each drug as this allows flexibility and provides options for the treating doctor.
3. Recognising relapse

For both doctor and patient, it is very important to be able to recognise relapse if it occurs, without confusing it with the occurrence of withdrawal symptoms. The best way to do this is by preventing withdrawal symptoms where possible and, should symptoms occur, by monitoring them carefully.

Withdrawal symptoms typically occur during tapering, or shortly after tapering has ended, and in most cases diminish and disappear within days or weeks.

Relapse (into depression, psychosis, sleeplessness etc.) usually occurs at the end of tapering, or weeks or even months after tapering has ended. The symptoms generally do not go away and may get worse over time.

It is important that a doctor monitors and guides the patient during tapering as well as during the period after tapering has ended. For the length of follow-up we refer readers to the relevant guidelines and protocols, as this time period will differ for different indications, drugs and patients.

Before tapering starts, we recommend that doctors make clear agreements with their patients about how they will monitor and guide tapering: about the frequency of their contact with one another and about how such contact will take place. This can be done through regular visits to the doctor’s office, or by other means such as telephone calls or internet applications, including electronic diaries.

If possible we will provide standard monitoring forms that will assist the doctor and patient in having regular review meetings.

4. Stabilisation

An additional and unforeseen advantage of the development of tapering strips is that it is now possible to start the tapering of drug doses down from all possible doses, and to prescribe them in all possible doses, including doses that differ from the standard registered doses available at the pharmacy (Figure 3).

![Figure 3: Stabilisation during taper](image)

This possibility of staying at a constant (usually lower) dose for a number of days, weeks or months (Figure 3) is known as stabilisation. It may be thought of as a ‘pause’ in the tapering process. The aims of stabilisation are as follows:

- to allow withdrawal symptoms, should they occur, to disappear before continuing tapering.
- to determine whether a dose lower than the current dose is possible (dose optimisation, see point 5),
- to reassure a patient who is afraid that tapering is going too fast and who may be experience withdrawal effects
5. Dose optimisation

Recommended doses in current guidelines are not optimal for each individual patient because they are based on averages. For many patients they are likely to be higher, in some cases much higher, than necessary. While these patients are likely to be better off with a lower dose, unfortunately it is currently very difficult, if not impossible, to predict which patients would benefit (otherwise doctors would prescribe these lower doses from the start). One way of finding out is to lower the dose while monitoring the patient carefully. Tapering strips provide the mechanism to achieve this.

There are many patients who want to stop taking drugs like antidepressants or antipsychotics, or reduce their dose, but doctors are often hesitant to prescribe lower doses. The reasons for this can be perfectly legitimate, for instance because the doctor wishes to prevent relapse.

But good intentions can have negative consequences if a patient then decides to stop taking the drug or lower the dose on their own, without the consent or advice of their doctor.

To prevent this from happening, we think that it is far more helpful if such patients are allowed to lower their dose gradually. Relapse may indeed occur, but the outcome may also be a lower dose and fewer side effects. No-one can predict this in advance with certainty. The question we should ask ourselves is whether relapse should be prevented at all costs, or whether patients should be given the opportunity to at least try. We advocate the latter because we think that patients will be helped more by experiencing relapse and learning from it. A requirement to make this possible is that a doctor carefully monitors the patient both during tapering and beyond, and helps the patient to adapt treatment if necessary – a process helped of course by being open about uncertainties such as the possibility of relapse and uncertainty about the length of time needed.

Adopting this approach means that a doctor can tailor the medication much better to an individual patient and more easily achieve the optimal dosage. Most current research, mainly in the form of randomised clinical trials, is not able to help patients achieve this – a fact that many people are unfortunately still not fully aware of. Tapering strips provide the tool to find a patients optimal dose – a process that should be carried out in close collaboration with the doctor, and one from which, if done properly, both patient and doctor will learn.

Summary

The use of Tapering Strips provides many tangible benefits to both doctor and patient and has the potential to improve the safety and efficacy of many psychotropic medications. Furthermore, the process by which a tapering schedule is agreed helps to build trust between the doctor and patient. The doctor can wholly concern themselves with the patients overall health, rather than be occupied with withdrawal effects, while the patient can go about their lives not unduly anxious about the changes taking place with their drug.

The result is an approach that doctors can take that is in their own and their patients best interests, minimising withdrawal effects and being flexible enough to adapt to changing circumstances. This shared decision making, combined with the concept of Tapering Strips, provides a compelling and empowering experience for doctor and patient alike.