Antidepressant and Anticonvulsant Treatment for Chronic Pain

Chronic Pain can differ in severity but subjectively most patients will say that it is disabling and changes their day to day life. In most cases pain is caused due to physical injury but some may be somatic due to a psychological issue. Regardless of the cause, chronic pain conditions are difficult to manage and treat. In this resource we will discuss the use of antidepressant and anticonvulsant medication and the benefits of their use for chronic pain conditions.

Depression and anxiety exacerbate pain symptoms due to increased tension, lack of energy, decreased sleep, and lack of functionality. Also, people with chronic pain are 2-5 times more likely to have depression than those without chronic pain.

There are 5 reasons to consider the use of antidepressants for patients with Chronic Pain:
1. Many patients with chronic pain conditions will have a co-morbid psychiatric condition. Mostly depression, anxiety, or mood disorders.
2. Antidepressants have shown to be effective to provide pain relief in addition to their antidepressant effects.
3. Sleep disorders are common in chronic pain patients. Lack of sleep can cause patients to suffer from certain psychiatric symptoms as well as increase their pain due to lack of rest of and increased tension.
4. Antidepressant medication increases energy for most patient in the day time which can help motivate some individuals to participate in physical therapy and be active.
5. Chronic pain patients tend to become dependent on pain medication over time and build up tolerance. The use of anticonvulsant and antidepressant medications together has shown to give a good effect in replacement of traditional opioid therapy.

ANTIDEPRESSANTS:
In general, SSRIs are the common first line medication intervention for depression. It is also important to realize that tricyclic medications (TCAs) are also effective for depression and have a better effect on sleep continuity than what SSRIs do. Some antidepressants such as Remeron and Trazodone are useful for sleep as well but have increased risk of weight gain.

SNRI medications such as Effexor, Cymbalta, and Wellbutrin have shown increased efficacy with management of neuropathic pain syndromes and chronic headaches. Some studies have even shown some improvements for patient with fibromyalgia

Most Common findings Regarding the use of Antidepressants for chronic pain:
1. The combination of an SSRI with a Tricyclic allows the SSRI to give full antidepressant therapy while the Tricyclic assists with sleep problems.
2. SSRIs have shown to be effective with diabetic neuropathy, fibromyalgia, and headaches.
3. SNRIs have shown efficacy for neuropathic pain, headaches, and non ischemic chest pain.

ANTICONVULSANTS:
Anticonvulsants have been studied and used more recently for neuropathic pain disorders. It is also important to note that some anticonvulsants are appropriate for treatment of depression, anxiety and some mood disorders. Specifically Neurontin (gabapentin) has shown to be effective in treatment of psychiatric disorders as it works on the same gaba receptors effected by anxiety. Tegretol (Carbamazepine) is another good option for co morbid conditions and combination therapy.

In more recent studies, there has been increasing evidence to show the use of antidepressants and anticonvulsants are helpful in replacing the use of opioid and benzodiazepine therapy. Specifically, Neurontin has shown positive effect in speeding up the tapering process for discontinuation of benzodiazepines while assisting with control of anxiety and mood disorders.

If a patient has chronic pain and a co-morbid psychiatric condition such as a mood disorder, depression, or anxiety then use of antidepressants and/ or anticonvulsants could be helpful. Combination therapy might be a good option for some individuals

ADDITIONAL TREATMENT METHODS:
Clearly medication management is only one piece to managing a challenging condition. Other therapies should be considered for most patients such as:
• Diet
• Physical therapy
• Stretching and physical activity
• Acupuncture
• Psychotherapy
• Progressive Relaxation Techniques

About the Virtual Guidance Program
JPS Health Network is proud to offer a new behavioral health clinical guidance resource to all primary care providers in our region. The JPS Behavioral Health Virtual Resource service offers:
• Telephone consultation with a behavioral health clinical team member
• Referral to community resources benefiting behavioral health patients
• Online reference library of behavioral health education materials
• Educational opportunities to increase provider understanding and comfort level in treating behavioral health conditions.
References
Relaxation Techniques
Relaxation is allowing physical and/or mental tension to be released. Anxiety is the body’s natural response to a threat. It can be a very useful response if the threat is real, but there are times when we don't need this tension. It is important to learn to cope with anxiety and develop relaxation skills.

Healthy living is a matter of balance. Relaxation is part of the balancing process alongside other aspects of your lifestyle such as what you eat, your physical activity and how you handle stress. Learning to relax takes practice, as with learning any new skill.

How relaxation helps

- **Reduces tiredness** – if you can manage everyday life without excessive tension
- **Improves performance** – With release of tension and muscular relaxation you are able to be more comfortable. Performance improves when you are not in a state of worry.
- **Reduces pain** – pain can occur as a result of anxiety e.g. headaches and backache. Relaxation can help you to cope by relieving muscular tension, allowing more oxygen to your muscles, and settling your blood pressure and heart.
- **Coping with stress** – relaxation helps you to reduce the effects of stress and to breathe effectively
- **Improves sleep** – by allowing you to be calm and peaceful
- **Improves personal relationships** – it is easier to relate well to other people when you are relaxed and self-confident

Relaxation and stress

When we feel anxious or stressed, it is our body’s natural response to feeling threatened which helps us deal with danger: our breathing rate increases, as does our blood pressure, heart rate, muscle tension, sweating, state of mental arousal and adrenaline flow. A lot of the time, we do not need those survival responses, so relaxation helps to decrease that response.

Breathing and Relaxation

Breathing out releases tension in the chest muscles and allows all muscles to release their tension more easily. Breathing is far more effective when we use our diaphragm, rather than with the chest muscles. Sit comfortably in a chair and place one hand on your chest and the other on your stomach. Take two large breaths – which hand moves first and which moves most? Practice so that it is the lower hand on your abdomen that moves rather than the one on your chest.
When you’re feeling tense or hoping to relax, try breathing out a little bit more slowly and more deeply, noticing a short pause before the in-breath takes over (don’t exaggerate the in-breath, just let it happen). You might find it useful to count slowly or prolong a word such as “one” or “peace” to help elongate the out-breath a little (to yourself or out loud).

There are various ways in which to achieve relaxation, most use breath control in some way. Whichever method you choose, regular practice will help. Some examples are:

- Progressive Muscle Relaxation – tense/relax muscular relaxation
- Meditation
- Mindfulness
- Guided Imagery or Visualisation - Imagine yourself in a calm, serene setting
- Exercise/Yoga
- Music (music is very personal, so use whatever helps you relax) either used alone, or with any of the above methods

**Simple Breathing Exercise**

A simple breathing exercise can be done in a few seconds, no matter where you are. It is particularly helpful at stressful times, but it’s also useful to do it at regularly throughout the day.

*Take a deep, slow breath in through your nose (filling up and expand your chest) and hold it for 5 seconds. Feel your abdomen expand as you do this.*

*Breathe out through your mouth slowly, to a count of 5. Breathe in again, make every breath slow and steady and exactly the same as the one before it and the one after it. As you breathe out, concentrate on expelling ALL the air in your lungs. Keep the breath out going as long a possible.*

**Quick Relaxation**

This can be used wherever you are (e.g. in the car, store, work, waiting in line, etc)

- **STOP AND THEN CLOSE YOUR EYES**
- **ALLOW YOUR SHOULDERS TO RELAX AND DROP DOWN**
- **TAKE 2 OR 3 SLIGHTLY SLOWER, SLIGHTLY DEEPER BREATHS OUT THROUGH YOUR MOUTH AND THEN BREATHE IN SLOW AND DEEP THROUGH YOUR NOSE.**
- **OPEN YOUR EYES AND THEN RETURN TO WHAT YOU WERE ORIGINALLY DOING**
Before any other relaxation exercise

Before any relaxation exercise, make sure you are in comfortable clothing and have removed anything that may be a distraction such as a turning off the TV and using the restroom. Lie or sit somewhere with the whole of your body supported. Make yourself totally comfortable. Close your eyes.

**Progressive Muscle Relaxation**

*Sit in a comfortable chair (or lie on the floor, or on a bed). Ensure you will not be disturbed by other noises. If you become aware of sounds - just try to ignore them and let them leave your mind just as soon as they enter. Soft, relaxing music is helpful as well. Make sure your body is comfortably supported*

- Close your eyes. Feel the chair supporting your whole body - your legs, your arms, your head. If you can feel any tension, begin to let it go. Take 2 slow and deep breaths, and let the tension begin to flow out.

- **Become aware of your head - notice how your forehead feels. Let any tension go and feel your forehead become smooth and wide. Let any tension go from around your eyes, your mouth, your cheeks and your jaw. Let your teeth part slightly and feel the tension go.**

- **Now focus on your neck - take away the weight of your head as you rest it and feel your neck relax. Now your head is feeling heavy and floppy. Let your shoulders lower gently down**

- **Notice how your body feels as you begin to relax.**

- **Be aware of your arms and your hands. Let them sink down into the chair. Now they are feeling heavy and limp.**

- **Think about your back - from your neck to your hips. Let the tension go and feel yourself sinking down into the chair. Let your hips, your legs and your feet relax and roll outwards. Notice the feeling of relaxation taking over.**

- **Notice your breathing - your abdomen gently rising and falling as you breathe. Let your next breath be a little deeper, a little slower...**

- **Now, you are feeling completely relaxed and heavy. .... Lie still and concentrate on slow, rhythmic breathing....**

- **When you want to, open your eyes. Pause before gently rising.**