

PAEDIATRIC CONVERSION DISORDER: PHYSIOTHERAPY MANAGEMENT - CHW

PRACTICE GUIDELINE[®]

DOCUMENT SUMMARY/KEY POINTS

- Conversion Disorder and Physiotherapy:
 - Conversion Disorder is a condition that affects voluntary motor or sensory function where no organic cause can be found for symptoms (e.g. altered gait, weakness or paralysis, pain, incoordination, unremitting fatigue and pseudoseizures).
 - Progressive physiotherapy has been shown to increase function in an inpatient setting.
 - Goals and expectations should be set before starting sessions and strictly adhered to.
 - Attention should not be given to abnormal symptoms or pain behaviours. Positive or normal behaviours should be rewarded during physiotherapy sessions.

CHANGE SUMMARY

- N/A –new document

This document reflects what is currently regarded as safe practice. However, as in any clinical situation, there may be factors which cannot be covered by a single set of guidelines. This document does not replace the need for the application of clinical judgement to each individual presentation.

Approved by:	SCHN Policy, Procedure and Guideline Committee	
Date Effective:	1 st March 2014	Review Period: 3 years
Team Leader:	Clinical Educator	Area/Dept: Physiotherapy CHW

READ ACKNOWLEDGEMENT

- This document is aimed at paediatric physiotherapists.
- All physiotherapists working primarily in the wards team are required to read and acknowledge they understand the contents of this document.
- Level 1/2 physiotherapists will be supervised by the senior ward physiotherapists prior to independent management of patients with Conversion Disorder.

TABLE OF CONTENTS

1	Background / Introduction.....	3
1.1	Definitions.....	3
1.2	Medical summary / info.....	3
1.3	Indications for physiotherapy.....	3
1.4	Aims of treatment.....	4
2	Referral Policy.....	4
3	Subjective Examination / History.....	4
4	Differential Diagnosis.....	5
5	Objective Examination.....	5
6	Treatment.....	6
7	Contraindications and Precautions.....	8
7.1	Contraindications.....	8
7.2	Precautions.....	8
7.3	Complications.....	9
8	Prognosis / Outcomes.....	9
9	Reference List.....	10
Appendix 1.....		11
Discharge Weekly Exercise Timetable.....		11

1 Background / Introduction

1.1 Definitions

Conversion disorder (Functional Neurological Symptom Disorder) is defined in the American Psychiatric Association: Diagnostic and Statistical Manual of Mental Disorders (DSM-V) as a condition in which symptoms and deficits in altered voluntary motor and sensory function suggest a neurological or other physical condition which is in fact not present¹. Conversion disorder is used to describe cases where no medical explanation for physical symptoms is found in the course of an appropriate medical assessment². As there is no underlying organic cause for the symptoms, conversion disorder is diagnosed by a process of exclusion. Less commonly used, synonymous terms are conversion paralysis, conversion reaction, hysterical paralysis, hysterical conversion, psychosomatic presentation, non-epileptic seizures, pseudo seizures, somatisation disorder and functional pain.^{2, 11}

1.2 Medical summary / info

Conversion disorder is characterised by sensory and/or motor deficits or physical manifestation of seizures with no organic cause. It is a psychological disturbance that produces subconscious alterations in sensory and/or motor functions. Onset is often precipitated by a minor injury or following a stressful life event and perpetuated by psychological issues within the individual or family situation.^{3, 11, 13} Aetiology of conversion disorder is still unclear, with latest theories involving reflecting errors in how emotional information is processed by the brain or motor-sensory components of emotional reactions.^{3,4}

Symptoms are most commonly motor paralysis, gait disturbance, incoordination, tremor or loss of speech. Sensory manifestations include paraesthesia, intractable pain, tunnel vision and blindness. Incapacitating headache and pseudoseizures are other common presenting features.^{1, 11} Unremitting pain in isolation is generally not classified as conversion disorder, rather as somatoform pain disorder. Likewise, nausea or unremitting fatigue in isolation are not classified as conversion disorder, but can be present with other symptoms.³

The incidence of individuals with conversion disorder has been reported to be between 11 and 48 per 100 000 people in the general population⁵, or 0.2% in 14-24 year olds³. Most papers report that conversion disorders are more prevalent in females^{1-3,6}, although some studies believe incidence is equal.⁴ One paper reports the greatest prevalence of conversion disorder in adolescence.²

1.3 Indications for physiotherapy

There are no randomised clinical trials evaluating conversion disorder and physiotherapy treatment. However, case reports in the literature^{1,2,5-10} as well as consensus from leading paediatric facilities in Australia^{2, 11-13} indicate that progressive physiotherapy is effective in increasing function in an inpatient setting. Physiotherapy also has a role in rehabilitation by providing the patient with a socially accepted avenue for improvement. Patients are often stuck in a cycle of disability and the 'sick role'. Physiotherapy gives them a reason for improvement as concurrent psychological gains are made.

Physiotherapy is indicated to prevent and treat secondary complications caused by the conversion symptoms, such as muscle weakness, muscle wasting and contractures.

1.4 Aims of treatment

Aims of physiotherapy treatment are to restore or optimise functioning. Goals are based on functional activities and aim to return the patient to normal community participation.

2 Referral Policy

A written Powerchart referral is required, as well as a verbal summary of the patient from a member of the treating team. Patients admitted for a rehabilitation admission under the psychological medicine or adolescent medicine teams are eligible to be referred for physiotherapy as part of their multidisciplinary treatment.

3 Subjective Examination / History

A subjective history should be taken after reviewing the medical records and results of all investigations. Prior to assessing the patient, one should discuss the reason for admission and goals with the treating team.

History taking should include:

- onset and duration of symptoms
- precipitating factors for onset
- aggravating and easing factors
- pain or symptom behaviour throughout the day
- previous and current activity levels, including school attendance, sleep patterns and recreations/interests
- medications
- sensory changes
- previous admissions/investigations
- identification of previous injury or illness

Details of previous physiotherapy are important as a new approach will be needed if the patient is to have a positive way forward to improve and resolve their symptoms.⁶

Obtaining information on social history will help in planning re-integration into the community, school and recreation activities. Family support and dynamics are also to be considered, as well as expectations for return to school and activities. Identification of the patient's main concern and their goals also provide important feedback about the patient's psychological readiness to engage in therapy and to guide therapy goals.

4 Differential Diagnosis

Conversion disorder has no specific definition but rather, is a diagnosis by exclusion.² Exclusion of any positive findings on testing for neurological disorders, cardiac conditions and specific musculoskeletal injuries or disorders (including Chronic Regional Pain Syndrome), leads to a diagnosis of conversion disorder.

5 Objective Examination

The objective examination varies for each individual patient, depending on their presenting symptoms. It is important for all patients to ensure all medical testing including MRI, X-Rays, nerve conduction studies, EMG and EEG are normal and no other diagnosis or organic cause for the symptoms can be found and there are no further medical investigations pending.

A musculoskeletal assessment including muscle length, strength, sensation and other neurological signs is required. These tests often show inconsistencies or discrepancies between reported symptoms and actual deficits, sensation findings that do not follow anatomical patterns, or differences in functional strength and specific muscle strength testing. It can also reveal secondary changes that have occurred as a result of prolonged dysfunction, such as joint contractures, muscle weakness and hyperaesthesia.

A body chart can be a good record of pain and sensory disturbance and to see how in tune the patient is with their symptoms.⁶

Observing gait is an important part of assessment. Gait should also try to be observed covertly or when the patient is distracted, to look for any differences when consciousness is taken away from the gait pattern.

More functional activities and challenging gross motor tasks should also be assessed as able. These include:

- bed mobility
- supine to sitting/ standing
- sit to stand
- standing transfers
- walking with and without aids
- walking backwards and sideways
- ascending and descending stairs
- walking on different surfaces
- running
- jumping
- hopping
- single leg stance

- tandem stance
- heel-toe walking

Specific tests include:

- standing broad jump
- timed Up and Go (TUG) test
- 6 minute walk test
- 10m run test
- modified 10m shuttle test

Select activities that test the muscles or range you wish to look at, rather than straightforward testing², as a more accurate picture of actual deficits can often be gained this way.

Distraction during testing will also minimise the impact of the patient's consciousness on their symptoms and improve the accuracy of the testing process.

6 Treatment

It is important that physiotherapy is timetabled to promote a regular routine and social opportunities along with school, psychology/psychiatry, visiting and rest times^{2,7}. The psychological medicine team develops a timetable on admission and schedules regular physiotherapy sessions after liaising with the treating physiotherapist. At CHW, physiotherapy is conducted with a physiotherapist daily during the working week (i.e. 5 x a week) and independently on the weekends. Sessions are land-based (e.g. in the gym) to facilitate functional gains. Hydrotherapy pool sessions can be used as an adjunct to more land based therapy or as an incentive to aid compliance. Sessions should be 30-60 minutes in duration. The patient is encouraged to wear comfortable and non-restrictive attire and footwear to promote an active mindset and facilitate movement. Family are generally restricted from therapy sessions and are encouraged to stay away from hospital during the day to aid independence of the patient.²

The length of admissions are guided by the patient's progress and determined by the psychological medicine team in consultation with the physiotherapist where appropriate. At CHW, commonly admissions are of 10-14 days duration, which is similar to case studies reported in the literature.^{2, 5, 11, 12, 13}

Patients need reassurance that it is understood their pain/deficits are not under conscious control, but that there has been no cause for their symptoms found on medical testing. Therefore, therapy must persist despite the presence of their symptoms. A diagnostic label is avoided where possible and the family and patient are encouraged to move their emphasis away from the symptoms and the cause and towards the treatment.^{6, 11} Physiotherapy sessions also focus on strengthening the "healthy" parts of the body and avoiding over emphasis on the symptoms or symptomatic areas.

Before starting the physiotherapy program the benefits and challenges in restarting physical activity are discussed and normalised.² The patient should be reassured that muscle aches and pains are indicative of muscles adapting to their use again.² At this time, it should be reinforced to them again that they should not stop activity to avoid pain.² Assurance should

also be given that fatigue is normal with increased activity and often assists in optimising sleep hygiene.

During physiotherapy sessions, the therapist should not attend to all abnormal behaviours, patterns of movement and gait. The therapist should encourage and praise positive behaviours or normal patterns of movement.^{5,6,7} At the end of each session, emphasis should be placed on the positive progress the patient has made or what they achieved in the session.

Goals are essential to guide rehabilitation and should be set in consultation with the patient in the first session after assessment.^{5,7} By including the patient in the goal setting process, the goals should become more meaningful and this may motivate them to take more ownership over their own rehabilitation. Goals of returning to normal community and pre-morbid activities should be encouraged.⁶ Short term goals should be agreed upon for the inpatient admission and long term goals set for discharge and continued progress at home. In working towards these greater goals, each individual physiotherapy session should also have specific and achievable goals.

Once goals are set, the patient is included in the treatment selection process e.g. choosing between activities offered by the therapist. By giving the patient some input into choosing activities, they should feel they have more control over their treatment.⁶ Selected activities should achieve therapy goals, be realistic, measureable and enable the focus to be taken away from the symptom or presenting problem. A progressive, graded exercise approach is recommended, adding more time, repetitions or difficulty to tasks in order to challenge the patient. Tasks are progressed based on mastery. Once a patient has mastered a task, they are allowed to progress to the new task. Tasks should not be practised if they are performed incorrectly.

Since symptoms are treated as if they are organic in nature⁵, the exercise programs usually follow a similar pattern of progression to programs for children with analogous neurological conditions⁵. Specific stretches and strengthening exercises can be used, but are most often avoided as they draw attention to the patient's deficits related to conversion disorder.^{7,8} In some cases, however, patients may have true secondary complications as a result of their conversion symptoms e.g. muscle shortening resulting in contracture. In these instances specific therapies may be indicated to facilitate a successful rehabilitation program e.g. passive stretches and serial casting.

Examples of activities mentioned in the literature and applied at CHW include:

- Desensitisation
- Sitting and standing balance activities⁵
- Transfer practice⁵
- Mobility practice / Gait re-education e.g. parallel bars, treadmill, pool⁵
- Stretching⁵
- General cardiovascular or muscular conditioning exercises e.g. treadmill, bike, upper limb ergometry, games, mini trampoline
- Core strengthening exercises e.g. exercise ball activities, wobbleboard
- Body weight resistance exercises e.g. squats, lunges, push ups⁵

- Free and machine weight resistance exercises ⁵
- Balance Exercises e.g. Single Leg/Tandem Stance, heel/toe walking^{7,9}
- Return to functional activities and sports – e.g. dodging, ball skills, kicking, outdoor walking ^{5,6,7}
- Hydrotherapy ⁷

Additional to the scheduled physiotherapy sessions as an inpatient, patients are provided with exercise programs to complete independently throughout their admission. These independent programs are designed to aid the achievement of therapy goals and to initiate the patient's responsibility and ownership over their own health status.

In addition to exercise prescription, a paper in the literature ⁶ advocated for the use of functional electrical stimulation to demonstrate to the patient that the limb can move normally. However, most of the literature advocates avoiding passive modalities and manual assistance to discourage dependence and to encourage normal, independent functional movement and activity. ^{2,6,7} This includes discouraging the use of walking aids and wheelchairs.

A home exercise program (HEP) may be required at time of discharge ⁷ to continue activity progression, achievement of goals and reintegration into the community. An activity planner/ timetable may be provided, which serves as a motivator to the patient to encourage regular activity, which meet prescribed criteria e.g. intensity, duration and frequency (see [Appendix 1](#)). Referral for local outpatient physiotherapy may also be indicated to continue therapy and achievement of therapy goals, support reintegration back into the community and monitor long-term activity levels and management of conversion symptoms.

Education about conversion disorder and its management is necessary for families, schools and other community groups in which the patient participates. Education will facilitate a more supportive transition back into the community, which is consistent with the treatment approach adopted in hospital. Advice on how to manage a recurrence of the patient's symptoms and the importance of participation in regular independent activity should be provided. Guidance may also be given to schools or community groups about graded return to sport.

7 Contraindications and Precautions

There are no documented contra-indications in the literature. The following are based on clinical lore.

7.1 Contraindications

- Patients with pseudoseizures are not able to use the pool for risk of safety to their airway or injury.

7.2 Precautions

- All organic causes for symptoms are ruled out before the program is started

- Ensure a safe, controlled environment for patients with pseudoseizures and continue sessions once the seizure has passed
- Reporting of any adverse events in physiotherapy to the treating team
- Do not attend to abnormal behaviours including excessive pain behaviours which may be persistent, as this is detrimental to progression of therapy.^{5,6}

7.3 Complications

If patients are left untreated or without adequate intervention, secondary changes such as muscle weakness and contracture are common^{7,12,13}. Prolonged deterioration in mobility and function can also have significant detrimental impact on the patient's emotional and psychological health, education and relationships. Deficits can persist for up to several years without psychological treatment and physical rehabilitation.

8 Prognosis / Outcomes

Prognosis varies greatly between paediatric versus adult patients and between treatment settings. Most children recover fully, if appropriate treatment is provided by health care professionals and is accepted and implemented by the family.³ The CHW experience is that the recovery time equates with the time of the onset of symptoms to the commencement of treatment. In practice, this means that some very impaired children may require inpatient treatment for days, weeks or others months.

Factors indicating favourable prognosis include:

- sudden acute onset of symptoms
- presence of a precipitating event/stressor during onset
- short duration between diagnosis and onset of treatment
- previous good health
- availability of a quick and clear diagnosis and explanation by a child health physician
- availability of appropriate treatment
- acceptance of the treatment program by the family and engagement in the treatment process

Poorer prognosis is related to⁴:

- failure of the child or family to accept the diagnosis and treatment resulting in 'doctor shopping' and inappropriate treatment
- negative interactions with medical staff, for example, negative or derogatory comments
- failure of medical staff to make a quick diagnosis, provide a clear explanation, or failure of the medical system to offer appropriate treatment resulting in iatrogenic-induced chronicity and secondary complications
- child protection issues within the family system

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Appendix 1

Discharge Weekly Exercise Timetable

Timetables to provide structure around levels of function and activity are provided to the patient and family at discharge. At discharge from CHW, patients are provided with a weekly activity timetable. The timetable is a written record for the patient to motivate them to continue progressing toward their therapy goals and encourage participation in the long-term maintenance of regular exercise. The frequency, time and intensity of activity are determined by the specific needs of the patient. The activities listed in the timetable are a mixture of those selected by the physiotherapist to achieve ongoing therapy goals (e.g. home strengthening exercise program, hydrotherapy program) and those selected by the patient that are of interest to them in the long-term (e.g. tennis). Patients must demonstrate that they have participated in at least one activity a day at the prescribed intensity by ticking in the box corresponding to the day and activity. An example of a weekly activity timetable is displayed below.

Patient's Weekly Exercise Timetable

Activity	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Walking							
Wii Fit							
Strength Exercises							
Swimming							
Other							

Patient must perform one of these activities every day of the week.

All of these activities should be performed each week to provide a variety of exercise.

Aim for 20-30 minutes each day.

Any questions call Physiotherapist on 99999999.