



EUROPEAN PAIN FEDERATION® EFIC DIPLOMA IN PAIN PHYSIOTHERAPY

INSTRUCTIONS FOR WRITING AND PRESENTING CASE REPORTS

Summary

Case reports should be written under the same headings as in the example provided. The case study should also be summarised using the International Classification of Functioning Disability and Health (ICF) Template for Clinical Examination (word template included).

Title Page: must include the following

Name of Candidate
Title of case report
Date of submission
Word count

Please ensure that you keep a copy of all your work.

Layout

- A4 white paper must be used.
- Typing should be double spaced and on one side of the paper only, using font number 12.
- The left hand border should be at least 2cm, but 4cm is recommended for documents which are to be bound on the left hand border.
- The top, bottom and right hand border should be at least 2cm.
- The right-sided margins should not be justified.
- Pages should be numbered consecutively.
- The submission must be stapled at the top left corner.
- Colours and/or other ornamentation should not be used unless required for graphs, pie charts etc.

Abbreviations

Always write out the full name of an organisation, condition, test or other item (with the abbreviation in brackets) the first time it is written in the text. Thereafter the abbreviation can be used.

e.g. The World Health Organisation (WHO) recognises that

There is a high prevalence of cardiovascular disease (CVD) in

Disability was assessed using the Roland and Morris Disability Questionnaire (RMDQ).

Citation Style

The Vancouver citation style must be used for all case reports

<http://libguides.ucd.ie/academicintegrity/vancouverstyle>

Please refer to this for full guidance on how to cite within the text and also in the reference list which should come at the end of your assignment

Physiotherapy Case Study Report Example

CASE REPORT (1500 words)

Abstract: (maximum of 150 words)

This case refers to a 67-year old woman with neck pain with a gnawing and electric shock-like feeling on the inside of the left upper arm. She had a whiplash injury 10 years ago and she wonders whether the pain is related to this original injury after so many years. Previous medical history includes a left mastectomy for breast cancer 6 years ago.

From the subjective and physical examination, no clear structural impairments could be identified despite the pain and functional limitations. Several factors indicate increased sensitivity of the central nervous system. Consequently, pain management will start with education on this mechanism and contributing and maintaining factors. Secondly, a graded activity programme will be implemented to increase the patient's physical activity level and to increase her functionality.

Clinical Examination

Subjective assessment.

67-year old woman presents with neck pain. She complains of a nagging pain at the shoulder-neck line, rating it as 9/10 on the Numeric Rating Scale for pain. The pain also spreads to her scapula and thoraco-lumbar region. The pain is constant, without a clear 24h-pattern and is sometimes associated with headache, ear whispers and nausea. Her sleep is also affected. Aggravating factors include standing or sitting for long periods, reading and computer work. Only rest reduces symptoms. She has a score of 33/50 on the Neck Disability Index, indicating severe limitations in activities¹. The patient was diagnosed with a whiplash injury 10 years ago after a car accident.

Secondly, the patient complains of a heavy feeling and sharp, electric-like pain at the inner side of the upper arm with sometimes shooting pain. The pain is intermittent and she has no sense of aggravating and relieving factors.

She had a left axillary lymph node dissection and mastectomy 6 years ago, however, she does not remember when this pain started.

Thirdly, some psychosocial (yellow flags) were noted. Her sleep quality is poor and she is very tired. Her general practitioner recommended that she use a neck support, but this does not help. She takes care of her sick mother and is very worried and anxious about her husband who has heart disease, and also worries about her own health and the potential of a recurrence of her cancer. Her pain is constant, but eases when she is away on holidays. She has had multiple physiotherapy sessions at different times, none of which helped. She is not physically active and reports having difficulty with housework due to her neck and arm pain.

She does not play any sport and is retired from work. Her main question is if there is any chance this pain will go away.

Physical Assessment

The patient presents with protraction of her head, hyperextension of the low cervical spine, thoracic kyphosis and abduction of the scapula on both sides.

Both passive and active range of motion of the left shoulder show an end range limitation in abduction and forward flexion.

Active extension and left and right rotation of the cervical spine are painful and limited.

On palpation unilateral and bilateral posterior-anterior glides are painful from C2-T5.

Palpation of the shoulder and neck region is painful and high muscle tension is noticed.

The neural tissue provocation test for the median nerve is painful at the inner side of the left upper arm and the patient is guarding.

Sensory testing in the same area indicates no hypoesthesia or pin-prick hyperalgesia (Semmes-Weinstein 3.61 normal/non-painful) but allodynia (cotton ball painful). Upper limb strength was found to be normal.

Recent MRI imaging of the shoulder and neck did not show any abnormalities other than expected age related changes in shoulder and neck.

Clinical Reasoning

The main complaint of the patient is neck pain, which occurred gradually after a whiplash injury 10 years ago. No clear structural underlying cause of her neck pain could be found and no clear aggravating and relieving factors could be identified. Taking this into account and the rather constant presence of the pain and the spreading of the pain to other regions may indicate involvement of central sensitisation mechanisms². This is confirmed on clinical examination that found generalised painful palpation of the whole shoulder and cervical spine and tenderness of the muscle around the shoulder and neck region.

The yellow flags (psychosocial factors) reported by this patient are known to be associated with chronic whiplash and chronic pain dominated by central sensitisation mechanisms³. Increasing evidence is available for the presence of central sensitisation in chronic whiplash as well^{4,6}. Literature also supports that sleep disturbance is a common problem in chronic pain⁷.

Her previous treatment for breast cancer could also be a contributing factor. The pain and altered sensations at the inner side of her upper left arm (operated side) are a common problem after axillary lymph node dissection. Possibly, a (partial) lesion of intercostobrachial nerve occurred during breast cancer surgery, causing altered sensations and neuropathic pain⁸. Additionally, increased mechanosensitivity of the brachial plexus is frequently reported after breast cancer treatment⁹. Clinical examination for the identification of the presence of neuropathic pain was performed according to the guidelines of the International

Association for the Study of Pain (IASP) ^{10,11}. There is indeed a high chance of neuropathic pain: history of nerve lesion, pain and sensory changes with neuroanatomically plausible distribution ^{10,11}. This second pain source may be an independent pain problem. However, because of the possible presence of central sensitization this 'local' problem may be sensitized as well. This should be taken into account when interpreting the patient's signs and symptoms.

The fact that she is not performing any sports enhances this chronic problem as well. Several studies indicate that regular physical activity is beneficial in chronic pain ¹²⁻¹⁴.

Management and Outcome

Medication

A review of her medication may be needed and recommendation for inclusion of neuropathic pain medication may be suggested. Despite the high numbers needed to treat for neuropathic pain medication, this may be a valuable treatment modality ^{15,16}.

Physiotherapy

(i) Education

Treatment would begin with modern pain neuroscience education. Here we aim to decrease the central sensitisation mechanisms and increase the patients understanding of her chronic pain problem. Educational interventions allow patients to understand their pain and hence to effectively cope with it ¹⁷⁻¹⁹. Modern educational sessions have also been shown to be effective in systematic reviews ^{18, 20, 21}. They increase patient's perceived control over their pain and can reduce pain-related physical and psychological distress, improve functional status ²², and enhance attitudes towards pain management ²³. Psychosocial factors and other maintaining factors are addressed as well during these sessions. If psychological and personality factors appear to be dominating and obstructing recovery, referral to a psychologist may be indicated.

(ii) Exercise

(a) A general exercise programme will be initiated. Given the chronicity of the patients' pain physical activity will be increased according to the graded activity principle. Based on the patient's personal goals, a physical activity plan will be made with clear sub goals and on a time-contingent base. It is expected that general physical activity will decrease central sensitisation and sensitivity of the peripheral nerve as well.

(b) Specific exercises for mobilisation and stabilisation of the neck and shoulder region will be started. These will be started at low intensity and gradually increased in a time-contingent manner. During these specific and general exercises, the information from the educational sessions should be applied.

(c) A relaxation programme can be beneficial ²⁴.

(iii) Manual Therapy

To decrease neural tissue sensitivity, passive and active neural mobilisations can be applied

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Treatment Progression

We would propose an intensive phase of 5-8 sessions over the course of 1 month for the education, initiation and progression of the general and specific exercises and desensitisation of the local neural tissues. After this phase the physiotherapist will adopt a coaching role and follow-up on the progression of the patient once weekly to once monthly. The main outcome measurement is the functionality of the patient. In chronic pain states like this, it is hard to expect to get the patient pain free. The Neck Disability Index may be a good outcome to follow-up on the progression.

Conclusion

Education and a progressive exercise and relaxation programme should assist this patient to manage her pain as well as increasing her function.

International Classification of Functioning Disability and Health (ICF) Template for Clinical Examination

Health Condition¹

Chronic neck pain after whiplash injury and neuropathic pain after left breast cancer surgery

Body Function and Structure Impairments

- constant pain at the neck (NRS 9/10)
- no structural impairments at the neck region could be identified
- heavy feeling and electric-like pain at the inner side of the left upper arm
- limited shoulder range of motion of left arm

Activity Abilities / Limitations

<p>Abilities</p> <ul style="list-style-type: none"> - cooking for herself and partner 	<p>Limitations</p> <ul style="list-style-type: none"> - household activities: activities with arm above shoulder height limited to 5 min - No sport: walking aggravates pain after 7 min - avoids use of the operated arm
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Participation Abilities / Restrictions

<p>Abilities</p> <ul style="list-style-type: none"> - enjoys small family meetings, big groups are too stressful 	<p>Restrictions</p> <ul style="list-style-type: none"> - no social engagement due to fatigue - social relationships limited to partner and close family
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¹ Adapted from: Davenport, T.E., 2015. Clinical Case Reporting in the Peer-Reviewed Physical Therapy Literature: Time to Move Toward Functioning. *Physiotherapy Research International*, 20(4), pp.220-230.

Personal factors

- Poor sleep quality, tired.
- High stress level: Taking care of her sick mother; constant pain, unless she is on vacation.
- Worried and anxious about her husband’s heart disease and potential cancer recurrence.

External factors

- Health of her husband and mother
- no children

List of possible diagnosis/syndromes

Diagnosis	History	Clinical exam	Ruled in	Ruled out
List all relevant hypothesis for this patient	List clues from the patient's history to support this Hx	List clues from the clinical exam to support this Hx	Explain findings that suggest this Hx should be further investigated or ruled in	Explain findings that suggest this Hx should be ruled out
1: Chronic whiplash pain with central sensitisation	Constant pain, high intensity, widespread pain, chronicity, yellow flags	Widespread pain and tenderness, no clear structural findings	See history and clinical exam	
2: Neuropathic pain (n. intercostobrachialis)	Identified lesion, neuroanatomically logical distribution of pain and altered sensations	Sensory testing anatomically logical, NTPT +	See history and clinical exam	Should take into account central sensitisation mechanisms when interpreting signs and symptoms

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