IMPORTANT INFORMATION FOR POLICY-MAKERS

POLICY-MAKERS AND MEDICINES REGULATORY AUTHORITIES
HOSPITAL MANAGERS
HEALTH INSURANCE MANAGERS

Persisting pain in children

Highlights for policy-makers extracted from the *WHO guidelines on the pharmacological treatment of persisting pain in children with medical illnesses*

World Health Organization

WHO Library Cataloguing-in-Publication Data

Persisting pain in children package: WHO guidelines on the pharmacological treatment of persisting pain in children with medical illnesses.

Contents: WHO guidelines on the pharmacological treatment of persisting pain in children with medical illnesses - Three brochures with important information for physicians and nurses; pharmacists; policy-makers and medicines regulatory authorities, hospital managers and health insurance managers - Dosing card - Pain Scale for children (4 years of age and up) - Pain Scale for children (6 - 10 years) - Wall chart for waiting rooms

1.Pain - drug therapy. 2.Pain - classification. 3.Pain measurement. 4.Analgesics, Opioid. 5.Drugs, Essential. 6.Drug and narcotic control. 7.Palliative care. 8.Child. 9.Guidelines. I.World Health Organization.

ISBN 978 92 4 154812 0 (NLM classification: WL 704)

Contents

Introduction

The brochure *Persisting pain in children* for policy-makers offers concise information which is extracted from the *WHO guidelines on the pharmacological treatment of persisting pain in children with medical illnesses* (*1*) unless otherwise stated.

These new WHO guidelines outline basic principles, clinical recommendations and health system recommendations. This brochure highlights selected issues which are essential for, in particular, policy-makers, medicines regulatory authorities, hospital managers and health insurance managers. It will allow them to include in their policies the guidelines' principle that all patients with pain, including children, should be treated with either pharmacological or non-pharmacological techniques, irrespective of whether the underlying cause can be identified.

The *WHO guidelines on the pharmacological treatment of persisting pain in children with medical illnesses* address the pharmacological treatment of persisting pain, including cancer pain. As such, it replaces the previous guidelines, *Cancer pain and palliative care in children*, which exclusively covered cancer pain. The new guidelines on *Persisting pain in children* are the first of a series of three guidelines documents on all types of pain in both adults and children. The topics of the other two guidelines will be "persisting pain in adults" and "acute pain".

The World Health Organization (WHO) estimates that around 5.7 billion people live in countries where moderate and severe pain is not adequately treated. Data from the International Narcotics Control Board (INCB) for 2009 show that more than 90 percent of the global consumption of strong opioids occurred in Australia, Canada, New Zealand, the United States of America, the United Kingdom and several other European countries. This means that their availability was very limited in many countries and regions. Over 80% of the world population will have insufficient analgesia.

Medicines for opioid analgesia, such as morphine, are subject to the Single Convention on Narcotic Drugs, 1961, and its 1972 Protocol. As a result, the focus has historically been on prevention of misuse, dependence and diversion while medical access has been neglected. In recent years, growing recognition of the legitimate use of these substances for medical and scientific purposes

has resulted in a shift in emphasis. For instance, both the United Nations Economic and Social Council's resolution 2005/25 and the 2005 World Health Assembly resolution WHA 58.22 on cancer prevention and control called on countries, and international bodies such as WHO and the INCB, to remove barriers to the medical use of such analgesics.

Mechanisms behind the impeded access to opioid analgesics and other controlled medicines are of various natures. They include legal and policy issues, and several educational issues at all levels, from patients and their families to physicians and policy-makers. All policy-makers have an important role to play in improving the current unfortunate situation.

WHO recommends that authorities and policy-makers responsible for expanding pain relief treatment in the health system assess national control regulations for the production, procurement, storage, distribution, prescription, dispensing and administration of opioid analgesics (and other controlled medicines).

Countries that have very strict laws and policies that do not allow ready access to pain treatment should endeavour to make them less restrictive and more practicable. WHO has developed guidelines that elaborate on the policy aspects of improving access to ensure the balance between the adequate availability for medical and scientific purposes while simultaneously preventing abuse, diversion and trafficking (*2*).

This brochure provides background information on the treatment of pain in children that can be helpful for ensuring adequate access to pain treatment. For more detailed information and additional references we refer to the formal pain guidelines document. This formal guidelines document is available as hardcopy at the WHO Bookshop[1] and online at www.who.int/medicines. In case of any discrepancy between this brochure and the guidelines document, the guidelines document should be the reference.

Similar brochures are published with highlights for physicians and nurses, and for pharmacists.

[1] tel.: +41 22 791 3264; fax: +41 22 791 4857; e-mail: bookorders@who.int; web: http://apps.who.int/bookorders/

1 What is new in the guidelines

All patients with pain, including children, should be treated, irrespective of whether or not the underlying cause can be identified. Inability to establish an underlying cause should not be a reason to conclude that the pain is fabricated.

The new guidelines recommend using analgesic treatments in two steps according to the child's level of pain severity. Paracetamol and ibuprofen are the medicines of choice in the first step: the treatment of mild pain. In the second step, the treatment of moderate to severe pain, morphine is the medicine of choice. Correct use of analgesic medicines will relieve pain in most children with persisting pain due to medical illness.

In the new guidelines, WHO recommends that codeine and tramadol no longer be used for children. The effects of codeine are unpredictable and therefore pose a safety risk. For tramadol, there is currently no available evidence for its comparative effectiveness and safety in children. In the previous guidelines, *Cancer pain and palliative care in children*, weak acting opioids like codeine and tramadol were recommended as an intermediate step between treatment with non-opioids paracetamol and ibuprofen and strong opioids like morphine.

Practitioners should pay attention to the initial dosage of strong opioids. The dosages recommended by WHO are lower than those recommended elsewhere.

The term "persisting pain" as used in these guidelines is intended to cover long-term pain related to medical illness. Chronic pain is quite often defined as pain which lasts over three months. Insurance companies which use this definition might not be willing to cover the costs of treatment during the first three months.

"Medical illnesses" refers to specific situations of ongoing tissue damage where there is a clear role for pharmacological treatment.

Health system recommendations

Opioid analgesics such as morphine and pain management services should be available at the primary, secondary and tertiary levels of care. Therefore, WHO recommends that the competence to prescribe controlled medicines, including strong opioids, not be restricted to a small number of medical specialties, e.g. oncologists or HIV specialists only. There should be a sufficiently dense network of pharmacies or other distribution points where these medicines can be obtained.

Need for education and training

The prescription of opioid analgesics is similar to the prescription of most other medicines. When used rationally for medical purposes, strong opioids are safe medicines. However, certain limitations need to be taken into account. Unlike many other medicines, the dose of opioids can be increased only gradually. Similarly, the medicine should not be stopped abruptly after a period of use. In order to avoid withdrawal symptoms, the dose should be reduced gradually. Training and education on how to prescribe opioids is important.

For methadone, additional training on the dosage is important as it has a long half-life in the body and tends to accumulate, with a risk of overdosage.

Assessment of pain is essential for estimating pain severity, and hence, for deciding which medicine to prescribe or how to adjust the dosage. Therefore, education in the assessment of pain, in particular in children, is also important. Children often show their pain in a different way than adults, and therefore their pain may be not recognized.

Community health approach

Community health approaches have been adopted for palliative care, especially in contexts where the burden of palliative care could not be sustained in the primary health-care level. This approach has been adopted in countries with serious shortages of health-care providers and a high burden of disease. Given the very limited health infrastructure and resources, and the high demand for palliative-care service coverage, community and home-based care are viewed as key in responding to palliative-care needs.

In response to the HIV/AIDS epidemic, some countries have developed strong home-based care networks in coordination with the primary health-care system and as part of the continuum of care for cancer and other chronic conditions. These initiatives have produced a solid knowledge base of how non-costly, good quality palliative care can be provided in low resource settings. They rely mainly on networks of community members, educated and supervised by a palliative-care team.

In line with Guideline 9 from the WHO policy guidelines *Ensuring balance in national policies on controlled substances*, decisions which are ordinarily medical in nature should be made by health professionals. Meanwhile, basic knowledge of methods for pain treatment is important for policy-makers, as described in the chapter "Recommended clinical approach".

Challenge of scarce resources

Some countries have developed innovative programmes to counter challenges related to providing treatment of persisting pain in a context of limited resources. For example, in some countries health-care workers, such as nurses, can specialize in a specific area and then are also allowed to prescribe opioids within the area of their specialization. Nurse prescribing can be useful – e.g. for mitigating pain in a number of circumstances, such as during a shortage of physicians or to improve the quality of care.

Case study: Emergency prescription in the United Kingdom (*3, 4*)
When the physician is not able to physically provide a prescription, a nurse or pharmacist can provide an "emergency" prescription of opioid analgesics for cancer pain. It is part of the following two systems in the context of the national health system:

- training and certification to allow nurses to prescribe any medicine that has been included in the Clinical Management Plan made by a medical doctor (Nurse Supplementary Prescribers = NSPs);
- training and certification to allow nurses to assess, diagnose and prescribe independently (Nurse Independent Prescribers = NIPs).

Some countries with extremely low resources for health care use morphine oral solution, which is locally prepared by the pharmacy for direct use. By using morphine sulphate or hydrochloride powder as the starting material, the cost per patient can be as low as USD 0.05 a day.

Case study: Improving access to pain relief in Uganda (*5*)

Uganda, classified a least developed country, has been able to implement a comprehensive plan for integrating pain relief in its health systems. This included training plans on pain management and rational use of opioids for nurses and other health-care workers, such as pharmacists, and also a change in the National Drug Policy and Authority Statute of 1993 to allow specialized palliative care nurses and clinical officers (a specialized Ugandan health worker category), to prescribe morphine. By early 2009, 79 nurses and clinical officers had received training on pain management and been authorized to prescribe oral morphine; several thousand health-care workers had attended a short course on pain and symptom management; and 34 out of 56 districts in Uganda had oral morphine available and in use. Accessing palliative care is now a reality for many patients and their families in Uganda. Numerous challenges remain, however, including ensuring availability and affordability of oral morphine throughout the country and training all relevant health workers. No reports of abuse or of diversion have been documented following implementation of these initiatives to increase opioid availability for pain relief.

WHO recommends that governments examine their drug control legislation and policies for the presence of overly-restrictive provisions that affect delivery of appropriate medical care involving controlled medicines. They should also ensure that provisions aim at optimizing health outcomes and take corrective action as needed. The WHO policy guidelines *Ensuring balance in national policies on controlled substances*, in particular the Country Check List in this publication, is useful for policy-makers.

Importance of estimating needs for pain relief

To make sure that sufficient controlled medicines are available for the treatment of persisting pain and palliative care, the needs have to be assessed. Every year, the competent national authorities must prepare estimates for the following calendar year of their requirements for morphine and other strong opioids. These estimates are submitted to the INCB. Under the Single Convention on Narcotic Drugs, 1961, as amended by the 1972 Protocol, the quantity of controlled substances manufactured or imported into a country must not exceed the official government estimates.

Establishing and submission of these estimates is a particularly important step in the supply cycle of opioid analgesics, as they set the yearly limits for the amount of strong opioids to be procured for medical use and, therefore, are a prerequisite for the uninterrupted supply of these essential medicines. Exporting countries will refuse to export additional narcotic substances to a country that has used up the quantity it is allowed to import for the calendar year. If an annual estimate proves to be inadequate, the competent national authority can submit supplementary estimates to the INCB at any time during the course of the year.

WHO and the INCB are working on a joint manual for estimating requirements for substances under international control.

It is recommended for policy-makers to read the entire Chapter 4 of the new WHO guidelines on the treatment of persisting pain in children with medical illnesses *which deals with improving access to pain relief in health systems, as well as Annex 6 on Opioid analgesics and international conventions.*

Case study: The State of Kerala, India (*6, 7*)

In Kerala, India, the state controlled substances regulations have been progressively simplified since the 1990s, and a new licensing system has increased the number of community-based palliative care centres with oral morphine, with little or any diversion or misuse. In July 2009, the State of Kerala's Directorate of Health Services issued an order to integrate palliative care into the primary health-care system. The circular included guidelines for service delivery, administration and reporting. The State made an exception on the requirement of a pharmacist for medicines dispensing service. Medicine supply (stock and dispensing) is possible from pharmacists to nurses.

Recommended clinical approach

Optimal pain management begins with an accurate and thorough pain assessment. This is not different from a "policy cycle" where a plan is developed on the basis of an assessment. Implementation of the plan needs to be evaluated and adjustments made as needed. However, in the case of pain treatment the evaluation has to be very frequent, up to several times a day as long as the pain has not stabilized.

Correct use of analgesic medicines will relieve pain in most children with persisting pain due to medical illness, and relies on the following key concepts:

1. using a two-step strategy
2. dosing at regular intervals
3. using the appropriate route of administration
4. adapting treatment to the individual child.

The four concepts are clarified below.

Using a two-step strategy

WHO recommends treating pain in two steps, based on pain severity assessment:

- Step 1 is for mild pain. The medicines used are non-opioid analgesics like paracetamol and ibuprofen. These substances have a fixed maximum dosage and can provide only limited analgesia.
- Step 2 is for moderate and severe pain. Strong opioids are used, e.g. morphine, using a weight-appropriate starting dose. The dosages recommended by WHO are lower than those recommended elsewhere. As long as the pain is not sufficiently addressed, the dosage needs to be increased in steps of no more than 50% per 24 hours.

Dosing at regular intervals

Opioids should be administered at regular intervals and not on an "as-needed" basis.

Weaning

Patients can wean from opioids safely in 5–10 days after short-term therapy without posing significant health risks. After long-term therapy the weaning period will take weeks. The occurrence of withdrawal syndrome needs to be monitored and if necessary the tapering off needs to be slowed down.

Using the appropriate route of administration

Although in many countries the prevailing route of administration is by injection, oral administration of opioids is preferred for all patients who are able to swallow. The subcutaneous route could be a valuable alternative for other patients.

Adapting treatment to the individual child

Treatment with strong opioids needs to be individually adjusted and there is no fixed maximum dosage. This may also include small rescue dosages in addition to the regular dosages for use in cases when additional pain is experienced (so-called "breakthrough pain").

4 Special issues

Alternative strong opioids may be needed in case a patient does not react well to morphine.

This section addresses special issues that need to be taken into account in designing new policies to improve access to pain relief in health systems.

Risk of dependence

Dependence is not merely the occurrence of tolerance and withdrawal symptoms. According to the definition of dependence syndrome, other symptoms need to exist, including a strong desire to take a substance, difficulties in controlling its use, persisting in its use despite harmful consequences, and a higher priority given to substance use than to other activities and obligations (ICD-10 definition).

Withdrawal can be prevented by gradually reducing the dose instead of making an abrupt interruption. Tolerance (a need for higher doses in order to achieve the same effect) may also occur with opioid analgesics, although the need for a higher dosage may also be related to an increased severity of the disease and the pain.

Prevalence of the dependence syndrome in pain patients is rare. The possibility that dependence might occur should not be a reason for not addressing the patient's pain. In case there is no further need for pain treatment, the patient should be treated for his/her dependence, just like any other side-effect of the pain treatment should be treated.

Risk of diversion

While opioids are potent medicines for the relief of moderate and severe pain, there is a risk of misuse and diversion, which can be low or high, depending on the country. Measures to reduce the risk of misuse of opioid medicines include alertness for this possibility and appropriate prescribing, including careful patient selection. To prevent accidental overdose by family members, the caregivers and the patient should be warned to store the medicines in a safe place in child-proof containers. The possibility that one of the parents may have opioid dependence and may be taking the opioids themselves should also be considered.

Sudden interruption of supply of strong opioid medicines

Sudden interruption of treatment with strong opioids leads to severe withdrawal syndrome. Withdrawal can cause additional suffering, and therefore it is extremely important to ensure the quality of the procurement system in order to minimize the risk of interruptions.

Research agenda

Many aspects of the pharmacological treatment of pain in children are insufficiently investigated. For this reason the guidelines development group of experts recommended a research agenda with priority topics for research in this area. It is highly recommended that governments promote research on these issues and make resources available.

Preparation availability

The following preparations need to be available for providing adequate pain treatment:

Step 1 analgesics (non-opioids)

For step one both paracetamol and ibuprofen should be available.

Paracetamol
Oral liquid: 25 mg/ml.
Suppository: 100 mg.
Tablet: 100–500 mg.

Ibuprofen
Tablet: 200 mg, 400 mg.
Oral liquid: 40 mg/ml

Step 2 analgesics (strong opioids)

Morphine should always be available as immediate release dosage forms (oral liquid, immediate release (IR) tablets 10 mg and injections). Additionally prolonged release tablets and granules should be available if affordable.

Morphine
Oral liquid: 2 mg (as hydrochloride or sulfate)/ml.
Tablet: 10 mg (as sulfate).
Injection: 10 mg (as hydrochloride or sulfate) in 1 ml ampoule.
Tablet (prolonged release): 10 mg, 30 mg, 60 mg, 100 mg, 200 mg (as sulfate).
Granules: (prolonged release, to mix with water): 20 mg, 30 mg, 60 mg, 100 mg, 200 mg (morphine sulfate).

Additionally, one or more other strong opioids should be available as an alternative to morphine in step two. There are many options, including:

Fentanyl
Transmucosal lozenge: 200 mcg, 400 mcg, 600 mcg, 800 mcg, 1200 mcg, 1600 mcg (as citrate).
Transdermal patch (extended release): 12.5 mcg/hr, 25 mcg/hr, 50 mcg/hr, 75 mcg/hr, 100 mcg/hr (as base).
Injection: 50 mcg/ml in various vial sizes (as citrate).

Hydromorphone
Injection: 1 mg in 1 ml ampoule, 2 mg in 1 ml ampoule, 4 mg in 1 ml ampoule, 10 mg in 1 ml ampoule (as hydrochloride).
Tablet: 2 mg, 4 mg, 8 mg (as hydrochloride).
Oral liquid: 1 mg (as hydrochloride)/ml.

Methadone (WARNING: requires additional training for dosing)
Injection: 10 mg/ml in various vial sizes (as hydrochloride).
Tablet: 5 mg, 10 mg, 40 mg (as hydrochloride).
Oral liquid: 1 mg/ml, 2 mg/ml, 5 mg/ml (as hydrochloride).
Oral concentrate: 10 mg/ml (as hydrochloride).

Oxycodone
Tablet: 5 mg, 10 mg, 15 mg, 20 mg, 30 mg (as hydrochloride).
Tablet (modified release): 5 mg, 10 mg, 15 mg, 20 mg, 30 mg, 40 mg, 60 mg, 80 mg, 160 mg (as hydrochloride).
Capsule: 5 mg, 10 mg, 20 mg (as hydrochloride).
Oral liquid: 1 mg/ml (as hydrochloride).
Concentrated oral liquid: 10 mg/ml, 20 mg/ml (as hydrochloride).

*The use of **pethidine** is not recommended*

Antagonist

For use in opioid overdosage

Naloxone
Injection: 400 mcg/ml (hydrochloride) in 1 ml ampoule.

Annex 1

Content of the document *WHO guidelines on the pharmacological treatment of persisting pain in children with medical illnesses*

This brochure is extracted from the *WHO guidelines on the pharmacological treatment of persisting pain in children with medical illnesses*. In order to give the reader an impression of the main document, its content is summarized below.

Pain in children is a public health concern of major significance in most parts of the world. Although the means and knowledge to relieve pain exists, children's pain is often not recognized, is ignored or even denied. These guidelines address the pharmacological management of persisting pain in children with medical illnesses. They include several clinical recommendations, including a new two-step approach of pharmacological treatment. The guidelines also point to the necessary policy changes required and highlight future priority areas of research.

All moderate and severe pain in children should always be addressed. Depending on the situation, the treatment of moderate to severe pain may include non-pharmacological methods, treatment with non-opioid analgesics and with opioid analgesics. These clinical recommendations are unlikely to be effective unless accompanied by the necessary policy changes, which can be found in the WHO policy guidelines *Ensuring balance in national policies on controlled substances: guidance for availability and accessibility of controlled medicines*.

The **Introduction** states the objective of the guidelines and a description of their scope, including which types of pain are specifically included and excluded. It also describes the patients to which they apply and the audience for whom the guidelines were developed.

Chapter 1. *Classification of pain in children* provides a description of pain classification systems.

Chapter 2. *Evaluation of persisting pain in the paediatric population* gives general guidance and key concepts on the assessment and evaluation of pain in children.

Chapter 3. *Pharmacological treatment strategies* provides clinical guidance to health professionals. It presents the recommendations for pharmacological interventions, emphasizing that moderate and severe pain in children should always be addressed. The main pharmacological recommendation for the treatment of children affected by persisting pain caused by cancer, major infections (such as HIV/AIDS), sickle cell disease, burns, trauma and neuropathic pain following amputation, foresees treatment with a two-step approach based on the severity of pain. Paracetamol or ibuprofen are the medicines of choice in the first step and are used for treatment of mild pain. Morphine, as a strong opioid, is the medicine of choice in the second step and is used for treatment of moderate to severe pain. Both strong opioids and non-opioid analgesics should always be available at all levels of health care. With the publication of these guidelines, WHO's "three-step analgesic ladder for cancer pain relief" has been abandoned for children.

Chapter 4. *Improving access to pain relief in health systems* sets out a number of considerations regarding how to improve access to pain treatment and includes four policy recommendations.

Annex 1. Provides *Pharmacological profiles* for selected medicines. **Annex 2.** *Background to the clinical recommendations* gives a description of the development process of the document, the considerations included by the Guidelines Development Group when formulating the recommendations and a brief statement of non-pharmacological interventions. **Annex 3.** *Background to the health system recommendations* provides the considerations by the Guidelines Development Group when formulating the recommendations from Chapter 4. **Annex 4.** *Evidence retrieval and appraisa*l, presents the Grading of Recommendations Assessment, Development and Evaluation (GRADE) tables developed using the retrieved literature, as well as the observational studies retrieved on topics for which there were no systematic reviews and randomized clinical trials.
Annex 5. outlines the *Research agenda*. International requirements for the handling and procurement of morphine and other opioid analgesics for the relief of pain are described in **Annex 6.** Finally, in **Annex 7**, individuals who contributed to the guidelines are listed.

Annex 2

Summary of principles and recommendations

Principles

Optimal pain management may require a comprehensive approach comprising a combination of non-opioid, opioid analgesics, adjuvants and non-pharmacological strategies. A comprehensive approach is possible even in resource-limited settings.

Correct use of analgesic medicines will relieve pain in most children with persisting pain due to medical illness and relies on the following key concepts:

- using a two-step strategy
- dosing at regular intervals ("by the clock")
- using the appropriate route of administration ("by the mouth")
- tailoring treatment to the individual child ("by the individual").

Clinical recommendations

1. It is recommended to use the analgesic treatment in two steps according to the child's level of pain severity.
2. Paracetamol and ibuprofen are the medicines of choice in the first step (mild pain).
3. Both paracetamol and ibuprofen need to be made available for treatment in the first step.
4. The use of strong opioid analgesics is recommended for the relief of moderate to severe persisting pain in children with medical illnesses.
5. Morphine is recommended as the first-line strong opioid for the treatment of persisting moderate to severe pain in children with medical illnesses.
6. There is insufficient evidence to recommend any alternative opioid in preference to morphine as the opioid of first choice.
7. Selection of alternative opioid analgesics to morphine should be guided by considerations of safety, availability, cost and suitability, including patient-related factors.
8. It is strongly recommended that immediate-release oral morphine formulations be available for the treatment of persistent pain in children with medical illnesses.
9. It is also recommended that child-appropriate prolonged-release oral dosage forms be available, if affordable.
10. Switching opioids and/or route of administration in children is strongly recommended in the presence of inadequate analgesic effect with intolerable side-effects.
11. Alternative opioids and/or dosage forms as an alternative to oral morphine should be available to practitioners, in addition to morphine, if possible.
12. Routine rotation of opioids is not recommended.
13. Oral administration of opioids is the recommended route of administration.
14. The choice of alternative routes of administration when the oral route is not available should be based on clinical judgement, availability, feasibility and patient preference.

15. The intramuscular route of administration is to be avoided in children.
16. A careful distinction between end-of-dose pain episodes, incident pain related to movement or procedure, and breakthrough pain is needed.
17. It is strongly recommended that children with persisting pain receive regular medication to control pain and also appropriate medicines for breakthrough pain.

There is insufficient evidence to recommend a particular opioid or route of administration for breakthrough pain in children. There is a need to make an appropriate choice of treatment modality based on clinical judgement, availability, pharmacological considerations and patient-related factors.

18. The use of corticosteroids as adjuvant medicines is **not** recommended in the treatment of persisting pain in children with medical illnesses.
19. The use of bisphosphonates as adjuvant medicines is **not** recommended in the treatment of bone pain in children.

At present, it is not possible to make recommendations:
- *for or against the use of tricyclic antidepressants (TCAs) and selective serotonin reuptake inhibitors (SSRIs) as adjuvant medicines in the treatment of neuropathic pain in children.*
- *for any anticonvulsant as an adjuvant in the management of neuropathic pain in children.*
- *regarding the benefits and risks of ketamine as an adjuvant to opioids for neuropathic pain in children.*
- *regarding the benefits and risks of the systemic use of local anaesthetics for persisting neuropathic pain in children.*
- *for the use of benzodiazepines and/or baclofen as an adjuvant in the management of pain in children with muscle spasm and spasticity.*

Health system recommendations

20. Education of health professionals in the standardized management of persisting pain in children with medical illnesses and in the handling of the necessary medicines, including opioid analgesics, is encouraged.
21. Health professionals will be allowed to handle opioids within their scope of practice or professional role based on their general professional licence without any additional licensing requirements.
22. In addition, countries may consider, subject to their situation, allowing other professions to diagnose, prescribe, administer and/or dispense opioids for reasons of flexibility, efficiency, increased coverage of services and/or improved quality of care.
23. The conditions under which such permission is granted should be based on the demonstration of competence, sufficient training, and personal accountability for professional performance.

Acknowledgements

The following people and institutions contributed to this brochure: Huda Abu-Saad Huijer, John J. Collins, Stephanie Dowden, Shaffiq Essajee, G. Allen Finley, Andrew L. Gray, Cleotilde H. How, Lulu Muhe, Adri Nieuwhof, Paprika Design, Vladimir Poznyak, Willem Scholten, Dorothy van Schooneveld, Cecilia Sepulveda Bermedo, Brittany Wegener, Chantal Wood and, indirectly, all those who contributed to the *WHO guidelines on the pharmacological treatment of persisting pain in children with medical illnesses*.

Generous financial support was received for the development of these brochures from the International Association for the Study of Pain (IASP), Seattle, WA, USA; the Mayday Fund, New York, NY, USA; the Ministry of Health, Welfare and Sport, The Hague, the Netherlands; and The True Colours Trust, London, United Kingdom.

Photos: Dr Srivieng Pairojkul of Khon Kran University (cover); Mildmay Uganda (page 6); Dr E. Hamzah, Hospis Malaysia (page 4); we would say thank you to Prof. Dr Christian Loffing, University of Applied Sciences Niederrhein, Germany; the children´s hospice Regenbogenland, Düsseldorf, Germany; and the children´s hospice Sonnenhof, Berlin, Germany (pages 5, 10 and 12); Dr Armando Garduno (page 6). Mrs Lindsey J. Woodworth and Dr Caprice A Knapp of the International Children's Palliative Care Network provided the photographs and mediated in obtaining permission of the photographers for inclusion of their pictures in this brochure.

References

1. *WHO guidelines on the pharmacological treatment of persisting pain in children with medical illnesses*. Geneva, World Health Organization, 2012.
   This document is freely downloadable from the WHO Medicines website (www.who.int/medicines) and is also available from the WHO Bookshop (http://apps.who.int/bookorders/anglais/home1.jsp?sesslan=1).
2. *Ensuring balance in national policies on controlled substances: guidance for availability and accessibility of controlled medicines*. Geneva, World Health Organization, 2011.
   Hard copies are available from the WHO Bookshop: http://apps.who.int/bookorders/anglais/detart1.jsp?sesslan=1&codlan=1&codcol=15&codcch=807; the document is also freely downloadable in multiple languages at: http://www.who.int/medicines/areas/quality_safety/guide_nocp_sanend/en/index.html
3. Cherney NI et al. Formulary availability and regulatory barriers to accessibility of opioids for cancer pain in Europe: a report from the ESMO/EAPC Opioid Policy Initiative. *Annals of Oncology,* 2010, 21:615–626.
4. Stenner K et al. Benefits of nurse prescribing for patients in pain: nurses' views. *Journal of Advanced Nursing*, 2008, 63:27–35.
5. Jagwe J, Merriman A. Uganda: Delivering analgesia in rural Africa: opioid availability and nurse prescribing. *Journal of Pain and Symptom Management,* 2007, 33(5):547–551.
6. Rajagopal MR, Joranson DE, Gilson AM. Medical use, misuse and diversion of opioids in India. *Lancet*, 2001, 358(9276):139–143.
7. McNeill D. In India, a quest to ease the pain of the dying. *New York Times,* 11 September 2007. http://www.nytimes.com/2007/09/11/health/11pain.html?_r=1&ref=health (accessed 18 November 2011).

ISBN 978 92 4 154812 0

World Health Organization
20 Avenue Appia
CH-1211 Geneva 27