

**Medical Assistance
in Dying (MAID)
Protocols and Procedures
Handbook**

**Comox Valley, BC
2017**

Second Edition

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Introduction

This document outlines the drug protocols available for MAID and the procedures for their administration. For details regarding the assessment of a patient requesting MAID see the MAID Professional Standard of the College of Physicians and Surgeons of British Columbia (CPSBC). This 2017 edition is a significantly updated version of the 2016 Handbook reflecting experience in BC and across Canada from the first 11 months of MAID.

As far as we are aware there is as yet no other Canada or BC-specific “how to” publication that details all the steps (and tips) necessary for the provision of a medically assisted death. In our community the local hospital and hospice are currently run by a faith-based organisation which prohibits MAID. This Handbook therefore concentrates on the provision of MAID in the person’s home.

We have drawn on a number of sources and are particularly grateful to fellow providers across Canada for their willingness to share their experiences. We have also used the advice to physicians from the Dutch physicians and pharmacists organisations (KNMG and KNMP respectively) in their publication “*Guidelines for the Practice of Euthanasia and Physician-assisted Suicide*”.

The decision by a physician to be a MAID provider should not be taken lightly. All physicians should possess the required clinical skills; planning, orchestrating and successfully completing a MAID event requires specific knowledge and preparation. To provide MAID in the community the physician must demonstrate to the senior deputy registrar of the CPSBC that they have had appropriate training or mentorship. To provide MAID in health authority locations requires non-core MAID privileging which also requires specific training. A prescription form to be used for MAID can only be obtained through these channels.

We strongly recommend that the physician providing MAID has another physician (e.g. the other assessor or the family physician) or a nurse present at the time of the procedure to give clinical support to the physician and additional emotional and practical support to the patient and their family or friends.

Protocols

There are 2 available routes for MAID drug administration in British Columbia. The intravenous route requires 4 drugs which are given in sequence as IV push doses. Death usually results in less than 10 minutes. The oral route takes longer to take effect. Most patients die in less than 30 minutes, but the process can last up to 24 hours. In the Netherlands, patients electing to have an oral protocol have an IV cannula inserted prior to taking the oral protocol. If death has not resulted within 2 hours, then the IV protocol

is used. An overwhelming majority of Dutch and Canadian patients opt for the IV protocol as there is a 3-10% failure rate with the oral route (though “failure” in some studies means death not occurring within 2 hours). It is a requirement of the CPSBC that a back-up IV protocol is available if the oral route has been selected by the patient as their initial choice. We strongly advise that two IV cannulae are placed in all cases regardless of protocol choice.

Factors influencing choice of protocol

- Patient choice
- Ability to swallow/tube feed 120ml in less than 4 minutes. Patients have to be able to stay awake to take the entire volume and not fall asleep before this has been completed. The oral formulation specified on the MAID prescription in BC is very bitter and can cause burning and nausea.
- Cannot use oral route in cases of sedation, vomiting, choking, bowel obstruction, poor absorption, severe fatigue, weakness etc.
- Oral protocols require anti-emetic pre-treatment
- Consider care needs, family factors and physician preference concerning the longer time frame of the oral protocol. Physicians are not required to offer both IV and PO protocols. The CPSBC Professional Standard requires that the physician administering the medication remains with the patient until death. The CPSBC Standard is silent on the timing of the IV back up if death has not ensued after the oral route has been used.

Pre-MAID checklist

Documentation

Ensure all appropriate documentation is in place. The pharmacist may request to review the documents marked below with an asterisk in addition to the Prescription and Special Authority.

- Patient's written request *
- Prescriber/Assessor's assessment form *
- Second Assessor's assessment form *
- MAID prescription
- Capacity assessment form (psychiatrist, geriatrician) - if appropriate
- MAID Special Authority form (must be sent with the prescription to the pharmacist and to Pharmacare. All medications are paid for by Pharmacare)
- Expected death at home form (for community MAID patients)
- Home & community care referral form cancelling HCC services after MAID date

Prescription

The prescription (Physician Prepared Orders [PPO]) must be issued in the patient's name.

- A discussion between the prescriber and pharmacist is recommended to ensure availability of drugs, details of back up medication return etc.
- Medications must be dispensed to the physician personally by the pharmacist.
- The pharmacist may wish to verify physician identity with photo ID.
- Even if the patient has opted for the oral protocol the physician will be issued with two full IV protocols as a back-up.
- Unused medications must be returned to the pharmacist within 48 hours.
- NB Some pharmacists may conscientiously object to dispensing MAID medications.

IV access

Check the patient's veins during the MAID assessment in order to determine if the IV cannulae can be inserted at the bedside or whether ultrasound guided insertion or a PICC line will be necessary.

Implantable Cardioverter-defibrillator

Must have been de-activated prior to MAID. There is no need for a pacemaker to be deactivated.

Funeral home

It is advisable to check on the funeral arrangements - most patients will have made plans. An Expected Death at Home form (when applicable) will have been given to the patient and their family. It is advisable to check that the patient's choice of funeral home is aware that the expected death will have been by MAID.

In cases where MAID has occurred at home and no family or friends are present, or there is untoward distress on the part of family, or communication difficulties, the physician may have to place the call to the funeral home for collection of the body. In rare cases the physician will have to remain on site until collection, in which case we recommend a pre-arranged collection time.

Physician availability

The two assessors may switch roles if necessary, if both are qualified providers, in case of emergency or unavailability of the originally agreed provider (e.g. sudden patient deterioration during provider vacation or absence). The second assessor may take over the prescriber role although they will have to (1) complete a provider assessment form annotated to make clear the circumstances, and (2) complete a new prescription (if one has already been signed). If the second assessor is not a qualified provider a new provider will have to be found and a third full assessment carried out.

Tissue and organ donation; biopsies and autopsies

Occasionally patients wish to donate organs or tissue such as their corneas. This will need to be planned well in advance with the appropriate team. Usually, though not always, it will require that MAID takes place in hospital. Rarely, a postmortem biopsy or autopsy is to be undertaken after the procedure. A pathologist and possibly the coroner will need to be consulted in good time.

Event planning

Plan where MAID will take place and who will be present with the patient. Most patients choose to die in their own bed, but some will choose a chair or recliner in the living room or elsewhere. It is best if the chair can recline and there is support for the patient's head after the onset of sleep.

Discuss who will be present. Persons not in support of the patient's choice should probably not be present as this can be a source of great emotional distress to all. Explain that family and friends, with the consent of the patient, have the choice of being in the room or nearby in the home, hospital or hospice.

Some explanation of what will occur on the day in terms of procedural steps and the effects of the medication is helpful as it assists the patient and their family in their planning of the event. Tell the patient and family that you can repeat this on the day especially for those not present during the planning process.

Ritual/ceremony

Discuss with the patient and family whether they will be carrying out a religious service or other ceremony at the time of MAID. Patients may not realise that they are free to invite family and friends for support and to make the day their own. Further, they may need encouragement to plan the event to promote a "good death" for them and their loved ones.

Photography/video

Some families wish to take photographs or video. Privacy law requires that all those present must give consent to this. When considering consent, the safest assumption is that the images may be published on the internet, for example on Facebook or YouTube. Remember that there is no guarantee that every aspect of the procedure will go according to your plan. Some providers give consent freely; some request that their face is not shown; some refuse consent. There is no requirement that consent be given.

Children and anxious family members

It is not unusual for the patient and their family to wish that children be present in the home or in the room where the procedure will take place. In our experience and that of others, their presence does not cause problems. It often provides additional comfort for the patient. It can be helpful for the child's own understanding of the peacefulness of a medically assisted death. It is prudent to ensure that the family understand that the children may need to be taken out of the room if their behaviour becomes problematic.

Some adults may be unsure if they can tolerate witnessing the procedure. Explain that they may leave at any point. Most will stay for the duration despite their fears, but some will leave after the patient falls asleep. If anticipated, discuss which family member might also leave to provide support to that person. In a hospital setting a social worker or nurse can be available outside the room to comfort the family member.

Timing

Once the patient has been approved for MAID by two independent assessors' discussion can take place to decide on the date for MAID. A patient will be eligible for MAID

11 days after signing their request form (the day of signing does not count; there then must be 10 clear days for reflection; MAID can only be performed following this period). An exception can be made to expedite MAID for only two reasons: death is imminent and expected to occur within the 10-day reflection period or there is a significant risk of loss of capacity during the reflection period. Both assessors have to agree to expedite. They must both document the decision. MAID can then be carried out as soon as is practically feasible.

Note that significant concern over loss of capacity secondary to medications that would be necessary for symptom control is a legitimate reason to expedite MAID. If a patient loses capacity to consent MAID may not be carried out unless they regain capacity. If a patient deteriorates unexpectedly and is not able to give consent palliative care continues until natural death occurs.

Some patients experience therapeutic benefit from being found eligible for MAID. They may therefore choose not to proceed immediately. Some patients actually anticipate this benefit. Some patients are concerned about future rapid deterioration interfering with ordinary assessment. For all of these reasons, patients may elect not to set a date for MAID immediately after the 10 clear days have passed. The law does not require that MAID should take place within a particular timeframe. Some Canadian MAID providers allow up to six months to pass after approval before carrying out a reassessment. We advise reassessment after 3-4 months.

Addressing fears and concerns

Patients who are anticipating a MAID death commonly have particular fears.

Incontinence during the procedure

Simple reassurance may be provided that this has not been found to be a feature of MAID deaths.

Failure of the drugs to work

Reassure the patient that the IV drugs themselves are 100% effective if the cannula is correctly sited. Tell the patient that there is a full back up IV drug supply; in the case of patients choosing the oral route, two full sets of IV sets are brought.

IV cannulae can fail and the patient should be aware of this possibility.

To reduce the risk of failure we strongly recommend the siting of two cannulae, preferably one in each arm. This includes cannulae sited under ultrasound guidance, which have been known to fail. If the patient has a PICC line or Portacath a back-up cannula is not needed. A PICC line or Portacath should be flushed to confirm patency.

The patient should be told that if despite these measures IV access is lost and cannot be regained at home then admission to hospital will be necessary.

Food and drink

Patients choosing the IV route may eat and drink normally, including alcohol.

Patients opting for the oral route should not consume lactulose or other stool softeners or laxatives within 24 hours of the protocol. They should also have nothing by mouth except for water or juice for 4-5 hours prior to taking the oral protocol.

Medications

Some patients fear loss of capacity on the day because of their routine and PRN medications, especially narcotics. Some deliberately reduce or omit these. The need for this should be discussed on an individual basis either by the family physician or the MAID provider. Doses that have not previously led to capacity issues should be continued.

Home and Community Care

There have been instances where Home and Community Care (HCC) staff have not been informed that care will not be required after a certain date; this has led to embarrassment and distress when their staff turn up after the procedure has been completed. We advise sending HCC notification that services will not be required after a specified date. Ideally, a fax informing HCC of the date of MAID (if the family agree to HCC knowing that MAID will take place) should be sent. Alternatively, the family can be asked to alert HCC as soon as possible after the patient's death.

Communication

Consider what form of words you will use to the patient as a farewell at the time of administration of the medication, and what words you will speak to the family as the procedure unfolds.

Think about what has been called "the art of being there". The physician clearly must be present but is not central to what is happening. Consider how, especially after all the medications have been given, you can become less evidently present.

Ask where you might be able to do any immediately necessary paperwork after the death, perhaps in a separate room to allow the family to grieve privately. The majority of paperwork should be completed off site afterwards.

Intravenous MAID protocol

Preparation of patient and family

Opportunity to rescind request

The patient must give written consent to receiving a medically assisted death at the time of the procedure. The consent on the formal Request Form may be signed by a proxy but the proxy must be an independent witness who satisfies the same requirements for independence as those persons who witnessed the patient's original written request for MAID. One of the original independent witnesses may be the proxy on the day of MAID (though they could not perform this additional role at the time of the formal written request). The patient should also be given the opportunity to rescind verbally their request for MAID *immediately* prior to the procedure taking place.

Explanation of procedure to patient and family/friends present

Include:

- Turn off cellphones and, if possible, disconnect or silence landline phone.
- Unless everyone present has already heard the information and there is no wish on their part to hear it again explain the sequence of events that will take place including what they may hear or observe.
- Ask who is to be with the patient at the time of the IV injections; both physically in contact with the patient or simply observing.
- Consider where everyone might stand or sit most comfortably.
- Give information about the medication and possible problems:
 - Midazolam may cause restlessness.
 - The patient may snore briefly after the Midazolam has been given.
 - Propofol injection may cause burning in the vein in about 10% of patients; Midazolam is given to reduce awareness of this, and Lidocaine is given to reduce/prevent it.
 - Respirations may cease during Propofol administration.
 - Death may result from the Propofol but Rocuronium is always given.
 - Death (cardiac arrest) after Rocuronium injection usually occurs within 5 minutes of respiratory arrest but may take as long as 20 minutes. Cyanosis may occur.
 - Muscle fasciculation due to Rocuronium is sometimes seen. It is very rare and need only be mentioned if it occurs.

Preparation of equipment

See Kit requirement at the end of this section for suggested supplies.

Ensure that a second set of all IV drugs has been dispensed. Note that for hospital cases, cost savings are being examined by Island Health including not having the second IV set of drugs drawn up in preparation. It would be reasonable in a hospital case for the second kit not to be drawn up if support staff are in attendance who can assist with drawing up the second set if needed urgently. However, we strongly advise that for community MAID cases both sets be fully prepared.

Draw up IV drugs and label all syringes (some pharmacists will do this as there is a fee they may claim for this work) including the order in which they will be given. Three flush doses of saline are needed. This can be done prior to arrival at the patient's home.

Insert the two IV cannulae at the bedside if access has not already been obtained e.g. via ultrasound-guided cannulae. In hospital cases this is best done a few hours in advance.

Giving the medication

The patient should be given the opportunity to rescind their request for MAID ***immediately*** prior to the procedure taking place.

Advise the patient and family to say their farewells prior to the injection of the IV protocol medications.

Ask specifically, just before starting the injection, if the patient and family are ready. Frequently patients are eager to proceed without any further delay.

Delivery order of IV medication

1	Saline	10 ml (upon insertion of new cannula or to ensure patency of existing)
2	Midazolam 10-20mg	2-4ml of 5mg/ml preparation
3	Saline	10ml (may be omitted)
4	Lidocaine 40mg	4ml of 1% preparation; pause to allow effect
5	Saline	10ml (may be omitted)
6	Propofol 1000mg	100ml of 10mg/ml preparation; give slowly especially if veins small or patient

7	Saline	10ml (mandatory; prevents crystallization or Propofol with Rocuronium)
8	Rocuronium 200mg	20ml of 10mg/ml preparation
9	Saline	10ml (mandatory; ensures full dose delivered centrally)

Notes on medication and their effects

Midazolam (fast acting benzodiazepine) works as a sedative with virtually no side effects. It induces sleep in 1-2 minutes. It can cause restlessness. If so, give Propofol immediately. Do not allow patient to eat or drink after Midazolam has been given as choking may occur. Respirations are usually normal with Midazolam but there can be brief snoring; consider warning the family of this. Very occasionally patients may be extremely tolerant of Midazolam. These patients may fail to fall asleep even after the whole of the second available dose of Midazolam has been given. ***However, if the patient does not fall asleep within a few minutes of receiving 20mg of Midazolam then the likeliest cause is that IV access has failed; it should be checked carefully.***

Once the patient is asleep after the Midazolam, Lidocaine is given to reduce possible burning in a peripheral vein due to Propofol.

Propofol (anaesthetic) induces coma in 1-2 minutes. Breathing slows down; any snoring ceases; some patients stop breathing during Propofol. In the case of very frail patients it may be clear that death has occurred during Propofol administration. Despite this all the Propofol and the following Rocuronium must be given. This should be explained to the family.

The PPO specifies the giving of saline flushes at steps 3 and 5 above. However, these may be omitted as they provide no particular benefit.

Saline flushes at steps 7 and 9 must **NOT** be omitted. The flush at step 7 prevents crystallization that can occur if Propofol and Rocuronium are mixed in the cannula or peripheral vein. The flush at step 9 ensures that all the Rocuronium enters the central circulation and does not remain in the peripheral vein.

Prior to giving the Rocuronium it **must** be confirmed that the patient is in a medically induced coma (or has died) from the Propofol:

- No response to verbal stimuli
- Slow, weak or absent pulse
- Slow, shallow or absent breathing
- No eyelash reflex

On the extremely rare occasion that the patient is not in a medically induced coma a further 1000mg dose of Propofol should be given. Once the patient is in a medically induced coma, Rocuronium (non-depolarizing neuromuscular blocker or muscle relaxant) is given. Breathing stops with no air hunger, gasping or distress. Colour changes may start quickly. Cardiac arrest is anticipated in 5 minutes but may take as long as 20 minutes. Rocuronium **must** be given even if death appears to have occurred after the Propofol has been injected.

Alternate drugs:

- Can substitute Propofol with Phenobarbital 3 grams
- Can substitute Rocuronium with Atracurium 100mg or Cisatracurium 30mg

Intravenous MAID protocol kit

The following are suggestions for a basic kit to administer IV medications. See also the Preparation Materials specified in the appendices (Dutch guideline “D”)

It is advisable to have multiple IV cannulae, needles, syringes, Tegaderm dressings and labels as a backup.

- Kit checklist
- All MAID documents
- Pen
- Stethoscope
- Sharps container
- Gloves
- Tourniquet
- IV cannulae sizes 20 and 22, with smaller size (24) for poor veins
- Syringes of appropriate sizes
- Needles for drawing up drugs
- Alcohol swabs
- Tegaderm IV dressing (or similar)
- Cotton balls and tape / dressing for after removal of IV
- Small garbage bag (do not leave any trash or supplies at the home; take them away with you as a courtesy)
- Linen saver

The following additional items will be required if the pharmacist does not draw up and label the drugs

- Labels for each drug and saline syringe, ideally with drug name and number of order of use
- Large needles to draw up drugs and saline e.g. 18G. The volume of Propofol in particular is very large (100ml) and the solution is viscous. The volume of Rocuronium is also large (20ml). The insertion of a venting needle into the vial to allow equalization of pressure will be necessary.
- Syringes per set of drugs (2 sets required) – a minimum of 2 x 60ml or 4 x 30ml (Propofol), 1 x 20ml or 30ml (Rocuronium), 3-5 x 10ml (Saline) – unless prefilled Posiflush saline syringes or similar have been dispensed – and 2 x 3ml (Midazolam and Lidocaine)

Oral MAID protocol

Preparation of patient and family

Prior to MAID

Patients should not consume lactulose or other stool softeners or laxatives within 24 hours of the protocol.

Keep NPO except for water or juice for 4-5 hours prior to protocol.

Give Metoclopramide 20mg PO and Ondansetron 8mg PO one hour prior to administering the oral protocol

NB The Dutch advice is more cautious than the BC advice. They use: Metoclopramide 10mg plus Ondansetron 8mg, at 12 hours, 6 hours and 1 hour before PO protocol, taken with a few sips of water. The Dutch state that Metoclopramide 20mg suppository may be substituted for the two 10mg tablets.

Opportunity to rescind request

The patient must give written consent to receiving a medically assisted death at the time of the procedure. The consent on the formal Request Form may be signed by a proxy but the proxy must be an independent witness who satisfies the same requirements for independence as those persons who witnessed the patient's original written request for MAID. One of the original independent witnesses may be the proxy on the day of MAID (though they could not be at the time of the formal written request). The patient should also be given the opportunity to rescind verbally their request for MAID **immediately** prior to the procedure taking place.

Explanation of procedure to patient and family/friends present

Include:

- Turn off cellphones and if possible, disconnect landline phone
- Unless everyone present has already heard the information and there is no wish on their part to hear it again explain the sequence of events that will take place including what they may hear or see such as brief snoring, changes in breathing and skin colour
- Ask who is to be with the patient at the time of the administration of the oral medication; both physically in contact with the patient or simply observing.
- Consider where everyone might stand or sit most comfortably
- Need for IV back up. May/will be given if death has not ensued after 2 hours (timing depending on physician preference but should be established beforehand). Discuss with the patient whether IV cannulae should be sited prior to taking oral medications.

We advise that two IV cannulae be sited prior to oral administration as the patient may develop circulatory collapse

- Oral protocol is bitter tasting and can burn. Consider offering the patient Lidocaine spray before administration of the oral protocol
- Advise the patient and family to say their farewells prior to consumption of the oral protocol medications.

Preparation of equipment

See kit requirements below for suggested supplies.

The compounded oral protocol is provided by the dispensing pharmacy as three separate powders (phenobarbital 20g, chloral hydrate 20g, morphine sulphate 3g). The morphine may be omitted if the patient has a significant morphine allergy as it is not required for the induction of coma. The powders are mixed into 120ml of either ORA-Plus or ORA-Sweet (or water if PEG or NG tube to be used). The resultant mixture is stable for 72 hours.

Ensure that two sets of the drugs in the IV protocol have been dispensed.

It is recommended that two IV cannulae are placed prior to giving oral medications given possible difficult IV access after an unsuccessful oral protocol.

Arrangements for patient care until death occurs should be in place (unless the physician has established with the patient that a back-up IV protocol will be given if death has not ensued 2 hours or some other specified period after the oral protocol has been ingested). Note that the physician is required by the CPSBC Standard to remain with the patient until death.

Delivery of oral medication

Advise the patient and family to say their farewells prior to giving the medication.

Ask specifically, just before giving the medication, if the patient and family are ready.

The physician or the patient must administer the medication; family or friends may not. The mixture is bitter. It should be followed by a room temperature, non-fatty, non-carbonated liquid e.g. water, juice, liqueur. Rare cases of vomiting have occurred after taking the treatment, but deep sleep and death usually follow as planned. Haloperidol may be given subcutaneously or intravenously in case of significant nausea. Haloperidol will be supplied by the pharmacy if requested on the PPO.

Notes on medication and other issues

Contraindications to oral protocol

Do not use the oral protocol if the patient has vomiting or is unable to swallow, except in case of a functional feeding tube or nasogastric tube. The patient needs to be able to take all the medication in less than 4 minutes as they may otherwise fall asleep and not take the full effective dose. Do not use the oral protocol in patients who are very weak, fatigued, sleepy, have choking, dysphagia or issues that can impair absorption e.g. gastric paresis, bowel obstruction, etc.

Comfort medications can be taken as usual.

Ingestion of medications

Some authorities state that a straw may be used but the Dutch guidelines state that a straw should not be used as some of the liquid may be left behind. If a straw is used, it should be followed with a small amount of water to rinse it. PEG tube or NG tube administration using a 60ml syringe with a funnel shaped tip is permissible. PEG tubes must be flushed with 60-90ml of water and clamped afterwards.

All the compounded medication should be consumed in 4 minutes, regardless of method. NB more rapid ingestion is endorsed by some authorities due to the risk of the patient falling asleep before the entire 120ml of liquid has been consumed.

Effects of medication

Most patients go into a deep sleep within 1-10 minutes after taking the medications. Most die in 30 minutes, but some can take 24 hours or longer. They remain in a deep sleep and do not suffer. They may have loud snoring, gurgling, hiccups, irregular breathing and pale cool skin. Family and friends should be warned of this.

Progression to IV back-up

May be necessary if:

- Incomplete administration of oral protocol secondary to patient weakness or other factors e.g. falling asleep prematurely or uncontrolled vomiting
- Failure of protocol within a pre-agreed time

Oral MAID protocol kit

- Complete IV protocol kit
- Stethoscope
- Glass or bowl, spoon; for mixing to preferred consistency
- Straw (but see discussion above)
- 60ml syringe with funnel tip (if PEG or NG tube)
- Water (if straw used)
- Drink e.g. water, juice, liqueur (to follow oral medication)

The death certificate may be completed either at the time or later. It must indicate the cause of death as MAID arising out of the underlying grievous and irremediable medical condition. The death is natural. (We understand that new death certificates are being published that will have a tick box for MAID instead of writing this on the first line). Some physicians complete the death certificate in the home and take a photograph of the document with a cellphone for later printing and sending to the coroner. There may be privacy concerns with this approach. Carefully deleting the image file afterwards will be necessary.

The family can contact the funeral home for collection of the body when they are ready.

Debrief with the team privately afterwards especially if there are members new to MAID.

There is no need to notify the coroner in person telephonically, but the official MAID reporting form must be completed and faxed to the Coroner's Office within 48 hours.

Return unused medications to the dispensing pharmacy within the pre-arranged time frame (maximum 48 hours). The pharmacist must take a copy of the fully completed MAID prescription record.

Debrief with the pharmacist as necessary.

Debrief as necessary regarding your own emotions; with spouse or partner, trusted colleague, other MAID provider, etc.

There is no formal requirement for physicians who have provided MAID in a person's home to notify the local health authority but Island Health requests that they be informed of each medically-assisted death by sending the same documents that are provided to the coroner (except the specific Coroners Report form) by fax 250-356-0445. This is to assist in planning for future MAID provision as well as for statistical purposes.

Note that all the forms necessary for the documentation of a medically-assisted death are available on the following BC Government website

<http://www2.gov.bc.ca/gov/content/health/accessing-health-care/home-community-care/care-options-and-cost/end-of-life-care/medical-assistance-in-dying/forms>

Conclusion

We hope that this document forms a practical support for physicians in the Comox Valley and beyond who wish either to provide a MAID service for their own patients or who wish to understand some of the practical issues involved in its delivery. We welcome comments to improve this work.

Please feel free to share this Handbook with colleagues who wish to learn about MAID provision.

Dr Jonathan Reggler jreggler@cmassociates.ca
Dr Tanja Daws tanjadaws@gmail.com

Comox Valley MAID Working Group
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Appendices

Appendix 1 - Steps to Peripheral IV initiation

The steps necessary to obtain training in siting IVs from St Joseph's Hospital nurse educators (NB the Self-learning module referenced is available from the nurse educators but is also contained in the Comox Valley Physician's MAID Information Package)

Appendix 2 - Co-ordinators of Site Operations, contact numbers

Appendix 3 - Extracts from the KNMG/KNMP Guidelines for the Practice of Euthanasia and Physician-Assisted Suicide 2012 ("the Dutch Guidelines")

"D" Propofol as coma induction medication – injection via syringe

Appendix III Advice regarding the insertion of an infusion needle Appendix

IV Advice regarding determination of the level of consciousness

Appendix 1

Steps to Peripheral IV Initiation

1. Complete “Initiating Intravenous Therapy” Self-Learning Module.
2. Complete “Initiating Intravenous Therapy” Quiz (85% required for passing grade)
3. Watch BD Nexiva IV insertion video available from:
 - a) SJGH intranet. From the main page of intranet choose “Nursing” then within Nursing list choose “BD Nexiva IV Technique”
 - b) Island Health internet link: <https://intranet.viha.ca/safety/risks/Pages/iv-therapy.aspx>
 - c) BD CareFusion webpage link: http://video.carefusion.com/services/player-bcpid4474939846001bckey=AQ~~,AAAAExlyvjE~,rRfyr7IM_p6uvv9bBTO76ZJRn-Ce_18iW&bctid=4727999056001
 - d) Youtube at <https://www.youtube.com/watch?v=yF9kp25LBfw> (this is a good version in HD)
4. Practice IV initiation on practice arms available from the education department. Clinical Nurse Educators Barb Paulson ext. 63354 or Carol Tinga ext. 63353
5. Book an appointment through Maxine Bowerman ext. 61431 to observe and complete IV initiation in the Endoscopy unit.

Appendix 2

Co-ordinators of Site Operations (CSOs)

Should it become necessary to admit a MAID patient to hospital as an emergency for continuation of the procedure, contact the local hospital Co-ordinator of Site Operations (CSO). They are available 24/7. The contact numbers for all the Vancouver Island CSOs are listed here as physicians may sometimes be providing MAID away from the Comox Valley. Note that St Joseph's Hospital is not listed as that facility prohibits the provision of MAID.

Campbell River Hospital	250-850-2141 local 67926
Cowichan District Hospital	250-710-7811
Nanaimo Regional General Hospital	250-755-7691 local 51327
Royal Jubilee Hospital	250-893-3454
Saanich Peninsula Hospital	250-361-5429
Victoria General Hospital	250-888-8082
West Coast General Hospital	250-731-1370

Appendix 3

D Propofol as coma induction medication – injection via syringe

MEDICATION

- 1 ampoule of lidocaine (10mg/ml, 10 ml)
- 1 vial of propofol emulsion (20mg/ml, 50 ml)
- 2 ampoules of sodium chloride solution 0.9% (à 10 ml)
- 3 vials of rocuronium 50 mg (10mg/ml, 5 ml)

PREPARATION MATERIALS

Injection materials, preferably a Luer lock (see Appendix VII for relevant needle sizes).

- 1 disposable syringe 2 ml or 5 ml (for lidocaine)
- 1 disposable syringe 60 ml or 3 disposable syringes 20ml (for propofol)
- 2 disposable syringes 10 ml (for sodium chloride solution 0.9%)
- 1 disposable syringe 20 ml (for rocuronium)
- 4 standard suction needles
- 1 infusion needle
- caps
- labels stating the names of the medications and numbered in the order in which they must be administered

ADMINISTRATION MATERIALS

- 1 three-way stopcock with tube (Luer lock)
- 2 pieces of gauze (10 x 10 cm)
- transparent dressing material/tape

EMERGENCY SET

Even for the most experienced doctors, things can sometimes go wrong. For this reason, the doctor must bring an extra set of intravenous of euthanatic agents and materials for the administration of the agents, as stated above. This emergency set does not need to be ready for use straight away.

POINTS FOR ATTENTION

Pain

In contrast to the other propofol preparations, Propofol-Lipuro emulsion and Propofol Fresenius emulsion contain medium-chain triglycerides. This causes less pain compared to other propofol preparations. For this reason, it has been decided to use propofol preparations with medium-chain triglycerides. Despite this, 10% of patients report pain during administration of these propofol emulsions. For this reason, before the propofol is administered, 2 ml of lidocaine is administered. However, administration of lidocaine beforehand does not guarantee pain-free administration of propofol. It is therefore important that the patient and the other people present are informed that the patient may feel pain during the administration of the propofol.

Allergies are not relevant

propofol is formulated in a soybean-oil emulsion. For this reason, propofol normally cannot be administered as an anaesthetic to people who are allergic to soy. However, for use as a coma induction medication during the practice of euthanasia, this allergy is not relevant.

Propofol vials

propofol vials are ready to use.

Shelf life

propofol emulsion contains no preservatives. For this application, propofol can be stored in the syringe(s) at room temperature for 24 hours following preparation. For this application, rocuronium can also be stored in a syringe for 24 hours at room temperature.

ONE DAY IN ADVANCE

- If possible, insert an infusion needle one day in advance. On page 28 (Appendix III), you can find advice on the insertion of an infusion needle.

PREPARATION

- Prepare the propofol syringe(s) and label it/them.
- Prepare the lidocaine syringe and label it.
- Prepare two syringes with 10 ml of sodium chloride solution 0.9% for rinsing in between the administration of propofol and rocuronium, and after the administration of rocuronium. Label the syringes.
- Prepare the rocuronium syringe and label it.

ADMINISTRATION

- Warn the patient and the other people present that the administration can be painful.
- Inject 2ml of lidocaine within 30 seconds.
- Inject the propofol solution within a maximum of 5 minutes.
- Rinse the infusion system with 10 ml of sodium chloride 0.9% (this ensures that the entire dose is administered).
- Check whether the patient is in a medically induced coma.
- Subsequently, inject rocuronium as a bolus.
- Rinse the infusion system with 10 ml of sodium chloride 0.9% (this ensures that the entire dose is administered).

Appendix III Advice regarding the insertion of an infusion needle

FOR THE INSERTION OF AN INFUSION NEEDLE, YOU REQUIRE:

- an infusion needle of at least 20G (pink) or even 18G (green)
- 10 ml of sodium chloride solution 0.9%
- 2 pieces of gauze (10 x 10 cm)
- a tourniquet
- a tube with a stopcock, and a Luer lock
- transparent dressing material (e.g. Tegaderm®) or dressing tape (e.g. Leukosilk®)

Ensure you have sufficient materials. Always bring extra materials.

INFUSION NEEDLES CAN BE INSERTED INTO A VEIN

- on the forearm
- on the hand
- in the cubital fossa
- near the ankle in the great saphenous vein, which runs along the ventral side of the medial malleolus
- on the foot

TECHNIQUE

- Ensure undisturbed surroundings.
- Take your time.
- Fill the tube with the stopcock on it with sodium chloride solution 0.9% using a 10 ml syringe. Leave the syringe connected to the tube and close the stopcock.
- Place the tourniquet on the forearm or calf and pull it tight, ensuring that the arterial circulation remains intact.
- The effect of the tourniquet is usually improved by letting the arm or leg hang loose.
- Look for a suitable blood vessel. Feeling a blood vessel is more reliable than seeing it.
- Feel whether the blood vessel is resilient, and therefore probably open.
- On the forearm and cubital fossa in particular, the blood vessels are sometimes easier to feel than to see.
- By rubbing or carefully tapping on blood vessels, they usually become easier to see and feel.
- Sometimes the blood vessels in one extremity are much easier to see and feel than in other extremities.
- Tell the patient when and where the venipuncture will be performed.
- Once the needle has been inserted into the vein, blood will be visible in the plastic section.
- The metal section of the needle protrudes slightly out of the plastic section that will ultimately remain in the blood vessel. For this reason, make sure that the needle is inserted 5-10 mm into the blood vessel.

- Then, pull the metal section of the needle out slightly and push the whole infusion needle further into the blood vessel.
- If this runs smoothly and the patient doesn't feel much pain, then the needle has probably been inserted correctly.
- Take off the tourniquet and lay the arm or leg in a horizontal position.
- Place a piece of gauze under the section of the infusion needle that is sticking out of the arm.
- Pull the metal section out whilst simultaneously using your other hand to fix the needle in place using the wings and to close the vein proximally from the needle. This prevents the infusion needle from being pulled out or blood leaking out of the needle.
- If you are not entirely sure whether the needle has been inserted correctly, then leave the tourniquet in place. Place a piece of gauze under the protruding section of the infusion needle and pull the metal section out in the manner described above. If the needle is correctly placed, then blood will run out of the infusion needle and leak onto the gauze. You can then remove the tourniquet.
- Connect the tube with the Luer lock on it to the infusion needle.
- Use the transparent dressing material to fix the needle in place such that the site of insertion remains visible. Fix the tube in place with the dressing material as well, in a location near the needle.
- Flush the needle. Subsequently, close the stopcock, remove the syringe and place the cap on the stopcock.
- Place the tube in a loop on the extremity, place a piece of gauze under the stopcock and fix everything in place.
- The same measures apply when inserting an infusion needle into the foot or ankle.

ADVICE IF IT IS DIFFICULT TO FIND A BLOOD VESSEL.

- Keep calm, as it is nearly always possible to insert an infusion needle.
- Take your time. Many of these patients have a poor filling capacity and it takes some time before the blood vessels become apparent. This can take up to several minutes.
- If applying a tourniquet, rubbing or tapping does not result in a vein being found, then leave the tourniquet in place and let the extremity hang.
- Wait patiently, rubbing the extremity a little or carefully tapping it.
- If this does not work, then look for alternative parts of the body, such as the other arm or the ankles or feet.
- If this is also unsuccessful, then you can often induce vasodilation by warming up the extremity.
- You can do this by wrapping a warm, moist towel around the extremity or by putting it in a bucket of warm water.
- Vasodilation can also be achieved using nitro spray or a nitro plaster.
- **Patience** is the most important tool for achieving the desired result.
- If the above measures are unsuccessful, request the assistance of a fellow GP, a nurse (e.g. a home-care medical action team), the ambulance service, a member of a palliative team or an anaesthesiologist.

Appendix IV Advice regarding determination of the level of consciousness

The following is a description of the various levels of consciousness up to and including lack of consciousness.

A patient is said to be in a medically induced coma if the patient satisfies all of the characteristics described in the section 'Medically induced coma'. A neuromuscular blocker can only be administered once the patient is in a medically induced coma.

CONSCIOUS

- Responds to verbal stimuli.
- Is breathing (spontaneously or after being ordered to do so)
- Has protective reflexes.

SEDATED

- Diminished/no response to verbal stimuli.
- Is breathing.
- Responds to pain stimuli.
- Has protective reflexes.

DEEP SEDATION

- No response to verbal stimuli.
- Diminished/no breathing.
- Little to no response to pain stimuli.
- Diminished/no protective reflexes.

MEDICALLY INDUCED COMA

- No response to verbal stimuli.
- Serious depression of circulation, evidenced by a slow and weak pulse.
- Serious depression of ventilation, evidenced by slow, shallow breathing.
- No protective reflexes, such as the eyelash reflex.