

Withdrawal of Organ Support (WOS) to Facilitate Comfort Care and Natural Death

Site Applicability

Critical Care

Practice Level

All staff working with patients in critical care who are alive because of organ support interventions and who are facing end of life despite available treatment options

Exclusions

Patients who are deceased after declaration of brain death

Need to Know

The interdisciplinary team's primary responsibility is to ensure that decisions are being made in a patient's best interests.

The following principles in accordance with the [2016 Canadian Critical Care Society's Guidelines](#) should guide the actions of the healthcare team to:

- honor the patient's wishes and values at end-of-life;
- offer care that is collaborative with a shared-decision making model;
- support family/substitute decision maker (SDM) during the difficult decision-making process;
- align evidence-based interventions with the patient and family's values, beliefs and goals;
- alleviate suffering and prevent harm; and,
- communicate clearly and respectfully with the patient, family/SDM, and the interdisciplinary team.

Prior to WOS, the interdisciplinary team should create an individualized care plan for the patient that focuses on timing for discontinuation of WOS treatments, implementation of palliative/comfort measures including symptom management, and family support. Care plans should be documented in the patient's chart in Cerner (see Care Plan in [Appendix A](#)). A referral to BC Transplant should be initiated.

The principles of expert interdisciplinary critical care should foster a seamless transition into end-of-life care. Individual WOS plans may vary in response to patient/family/SDM's priorities and wishes. However it is imperative that end-of-life care in the critically ill be of the **highest quality** in all circumstances, including that of organ and tissue donation (see checklist in [Appendix B](#)).

High quality end-of-life care:

- maintains dignity, respect and compassion;
- explores the wishes and voices of the patient and family/SDM and incorporates such wishes and voices into the interdisciplinary care plan;



- respects cultural, spiritual values and observances;
- continues to support and partner with families/SDM and health care team members throughout the death experience;
- is consistent with national guidelines;
- focuses on alleviating any burdensome symptom of dying (e.g. pain, distress) and providing comfort;
- adheres to the existing medico-legal framework that includes respect for the dead donor rule and;
- precludes intentional hastening of death (notwithstanding medical assistance in dying legislation);
- avoids unnecessary prolongation of the dying process; and
- preserves the opportunity to donate organs and tissues if organ donation is a preference and goal the patient/SDM has indicated they want to pursue.

Guideline

Principles of WOS

1. Symptom management

- 1.1. Ensure medications to alleviate other symptoms such as excessive secretions, post-extubation stridor, and nausea are included in the care plan.
- 1.2. Opioid and sedative medications are titrated to symptoms with no dose limit.
- 1.3. Use objective signs of pain, shortness of breath, agitation, and delirium to guide symptomatic treatment. Neuromuscular blocking agents should be discontinued before WOS to aid in symptom assessment.
- 1.4. Treat pain and dyspnea with opioids before employing the use of sedatives for anxiety or agitation.
- 1.5. Use medications both to treat current symptoms and in anticipation of symptoms that are likely to arise. Document the rationale for giving any comfort medication (See [Appendix C](#)).

2. Family/substitute decision maker support

- 2.1. Involve patient/family/SDM in shared-decision making.
- 2.2. Offer patient/family/SDM spiritual and bereavement supports. Efforts should be made to accommodate any religious or cultural rituals, including involvement of their own religious leaders. Consider offering patient/family/SDM participation in the Wishing Well project (See [Appendix D](#)).
 - 2.2.1. To facilitate excellent bereavement support, interdisciplinary team members should receive education on the grieving process and how to provide acute support.
- 2.3. Invite family/SDM to be present at the time of WOS and assist in patient care.



- 2.4. Physicians, where possible, remain available as needed for family/SDM and staff once WOS has occurred to answer questions and offer additional support.
- 2.5. Following the death of their loved one, provide family members with information on community bereavement resources along with a letter of condolence.
- 2.6. In the event of a dispute involving SDM and the care team regarding WOS, follow the dispute resolution process outlined in [PHC's Consent to Health Care policy](#).

3. Discontinuation of treatment

- 3.1. Offer unrestricted family visiting and where possible and support visiting (e.g. arrange a space for the family to gather privately). Review the approach to monitoring with the family/SDM and the healthcare team. Display an unobtrusive sign outside to alert members of the health care team that WOS is occurring (See [Appendix E](#)).
- 3.2. In keeping with a care plan, WOS includes discontinuation of all non-comfort focused medications and interventions including dialysis, transfusions, parenteral feeding, enteral tube feeding, intravenous fluids, blood work, and imaging studies.
- 3.3. Deactivate implantable cardiac defibrillators prior to WOS, and consider discontinuing or disabling transvenous or permanent pacemakers.
- 3.4. The pace and order of withdrawal is individualized to the needs of the patient. However, consideration is given to withdrawing vasopressors and inotropes first, followed by mechanical ventilation and the artificial airway.
- 3.5. Providing that the patient is on comfortable, consider terminal extubation. In the absence of contraindications, extubate the patient to room air. Non-invasive ventilation or supplemental oxygen is not provided except for comfort.
 - 3.5.1. Consider immediate extubation if patient is comfortable while on low ventilator support
 - 3.5.2. Terminal wean is preferred when there is concern for respiratory distress post-extubation. Titrate ventilation support to minimal settings on the ventilator over 15 minutes while titrating medications for comfort and reducing respiratory distress.

If on PSV, wean to minimal pressure support, PEEP and FIO₂.

If on AC minimize PEEP, FIO₂ and drop RR to 10.

When patient appears comfortable on minimal settings, proceed with terminal extubation.

4. Case audit and review

- 4.1. Consider debriefing with the inter-professional team after each WOS case, with guidance from ICU CNL and/or SW.
- 4.2. Perform case audits regularly to ensure that protocols were followed and to identify opportunities for improvement.



5. Donation after circulatory determination of death (DCD)

- 5.1. Refer all patients with a plan in place for WOS to BC Transplant in accordance with the [Human Tissue Gift Act](#).
- 5.2. The decision for WOS precedes the decision for organ donation (if eligible and if in keeping with the patient's goals/values/wishes). Decisions about WOS to allow natural death and organ donation should be independent of each other.
- 5.3. The principles of care during WOS is the same regardless if the patient is applicable to organ donation or not.
- 5.4. Explicit consent must be obtained for the administration of any medications that are being prescribed to optimize the chances of organ donation, but are not normally part of WOS, such as unfractionated heparin. Generally, the consent for these medications is obtained from the SDM via the BC Transplant team.
- 5.5. If the dying process is prolonged and the patient is no longer a candidate for organ donation, symptomatic management and family/SDM support will proceed as outlined above. Tissue donation may still be appropriate and feasible in these situations.
- 5.6. If not already in place, consider whether consult to specialist palliative care team is needed for ongoing support and management.

Documentation

1. See [Appendix C](#) for Sample Documentation of Medications
2. [Documentation for Death \(Inpatient\) in CST Cerner](#)

Patient and Family Education

1. Helpful booklets "A Guide of What to Do When Someone Dies" and "After the Death of a Loved One- What Do I Do?" can be found in the Print Health Education Materials (PHEM) on the PHC Homepage and available in various languages. <http://phc.eduhealth.ca/>

For children, you may find it helpful to use books as a bridge to conversations about the critical care environments, critical illness, and grief and loss. Some books include:

 - a. Medikidz Explain the Intensive Care Unit - By Dr. Kim Chilman-Blair and Shawn DeLoache.
 - b. The Memory Tree - By Britta Teckentrup.
 - c. The Feelings Book - By Todd Parr.
 - d. Sad Isn't Bad: A good grief guidebook for dealing with loss - By Michaelene Mundy
2. Social Worker and Spiritual Health Practitioners can provide information about support services.
3. Patients in critical care can be offered the Wishing Well: a wish-granting initiative that aims to honour, dignify, and celebrate the patient's life, and to humanize the patient's end-of-life experience. See [Appendix D](#).



Related Documents

1. [BD-00-11-40021](#) – Donation After Cardiac Death
2. [BD-00-07-40103](#) – Supporting choices through informed decision-making and collaboration
3. [B-00-11-10116](#) – Code Status (Options for Care)
4. [B-00-11-10129](#) – Advance Care Planning/Serious Illness Conversations
5. [B-00-11-10110](#) – Consent to Healthcare
6. [Human Tissue Gift Act](#)
7. [B-00-11-10132](#) - Cultural and Ceremonial Use of Indigenous Traditional Medicines, Foods, and Practices
8. [B-00-12-10256](#) - Procedure to Address Indigenous Smudging and Pipe Ceremony Requests
9. Wishing Well documents

References

Bandrauk, N., Downar, J. *et al.* Withholding and withdrawing life-sustaining treatment: The Canadian Critical Care Society position paper. *Can J Anesth/J Can Anesth* **65**, 105–122 (2018).

<https://doi.org/10.1007/s12630-017-1002-1>

Downar, J., Delaney, J.W., Hawryluck, L. *et al.* Guidelines for the withdrawal of life-sustaining measures. *Intensive Care Med* **42**, 1003–1017 (2016). <https://doi.org/10.1007/s00134-016-4330-7>.

Healey, A., Hartwick, M., Downar, J. *et al.* Improving quality of withdrawal of life-sustaining measures in organ donation: a framework and implementation toolkit. *Can J Anesth/J Can Anesth* **67**, 1549–1556 (2020). <https://doi.org/10.1007/s12630-020-01774-6>

White, Douglas, B. Withholding and withdrawing ventilatory support in adults in the intensive care unit. UpToDate. 2022. Retrieved October 2022 from <https://www.uptodate.com>

Definitions

Care Plan: A written plan of care for patients in the critical care setting that is documented and updated as necessary in Cerner. This could refer to the “heart center palliative care plan”, or the “WOS Care Plan”.

Substitute Decision Maker (SDM): If an adult is determined to be incapable of making a consent decision, consent must be obtained from a properly executed Advance Directive or from someone on the patient’s behalf. This person is called the substitute decision maker. Refer to Appendix C in [Consent to Health Care Policy](#) for further information.

Withdrawal of Organ Support (WOS): discontinuing organ-supporting measures can include the discontinuing of vasopressor and inotropic infusions, renal replacement therapies, mechanical ventilation, supplemental oxygen and/or artificial airways.



Appendices

- [Appendix A](#): WOS Comfort Care Plan in Cerner
- [Appendix B](#): Withdrawal of Organ Support Checklist
- [Appendix C](#): Sample Documentation of Symptoms and Medications in Cerner
- [Appendix D](#): Wishing Well Pamphlet for Patients and Families
- [Appendix E](#): Sample Unobtrusive Sign



Appendix A: WOS Comfort Care Plan in Cerner

The screenshot displays the Cerner EHR interface for adding a new note. The 'New Note' tab is active, showing a 'Note Type List Filter' with 'Position' selected. The '*Type:' dropdown is set to 'Interdisciplinary Care Plan'. The 'Title:' field contains 'WOS Care Plan'. To the right, the 'Note Templates' table lists several templates, with 'Free Text Note' highlighted in blue. Below this, the 'WOS Care Plan' tab is active, showing a list of templates. The 'WOScareplan' template is highlighted in blue. Two callout boxes provide instructions: '1. Add New Free Text Note with the appropriate Type and Title' and '2. Type " (ie. Two apostrophes) to bring up a list of templates. Choose "WOScareplan template'.

Note Type List Filter:
Position

***Type:**
Interdisciplinary Care Plan

Title:
WOS Care Plan

Note Templates

Name	Description
CCOT Note	Critical Care Outreach Team Note Template
Free Text Note	Free Text Note Template
ICU Daily Progress Note	ICU Daily Progress Note Template

WOS Care Plan

Tahoma 11

"

- "BMC_FollowUp *
- "BMC_InitialConsult *
- "BMC_PrenatalAssessment *
- "CCON_note *
- "CLS_Assess *
- "CLS_CP *
- "CLS_MI *
- "DriverRehabReferral *
- "NCONC_Family_Meeting *
- "NCONC_Family_Meeting_AA *
- "NCONC_Family_Meeting_SRBCellALL *
- "OBBCWACCP_Comfort *
- "OBBCWACCP_General *
- "OBBCWACCP_Seizure *
- "PSUSafeSleepandFallsPreventionCarePlan *
- "RecTAx *
- "SPHOBcarePlanCardiac *
- "SPHOBcarePlanGeneral *
- "WOScareplan *
- "aga_supportandassistanceplan *
- "aga_supportandassistanceplanhistory *
- "apheresisassessment *
- "asthmaeduinpatient *

1. Add New Free Text Note with the appropriate Type and Title

2. Type " (ie. Two apostrophes) to bring up a list of templates. Choose "WOScareplan template



WOS Care Plan
List
4

Tahoma
11

TSDM: Jane Doe

Summary of Family Conference/Phone Call: Met with Jane Doe (wife), James (son, via phone), with SW John, RN Joe. Discussed the guarded prognosis. Family agrees and decided that it would be in the patient's best wishes to be comfortable and palliate.

Plan of Care to Withdrawal of Organ Support to Facilitate Comfort Care and Natural Death (WOS):

- Procedure for WOS reviewed with family and team (include in the text field about all tubes and devices such as ventilator, ETT, catheters and medications such as vasopressors, analgesics): Y✓
- When family is ready, we will turn off all pressors. Then we will turn off ventilator and extubate. For any sign of discomfort such as shortness of breath, we will use PRN Hydromorphone IV. All other medications such as antibiotics have been stopped. Writer will remove small bore feeding tube for comfort.
- Timing of WOS is set: Y✓
 - Plan to WOS tomorrow after pt's son James arrive around 9am.
- Does family want to stay with patient during WOS: N✓
- Does all staff and family members understand the goals of symptom management during WOS, including the reasons for various medications? Y✓
 - Spiritual care needs discussed and services offered? Y✓
 - Wishing Well offered: Y✓
 - Liberalized family visiting offered: Y✓
 - BC Transplant contacted: Y✓
 - Has the patient and family been offered the opportunity to donate organs and tissues? Y✓ Jane states that it is not her husband's wishes to donate organs.

Shortly before WOS, at the patient's bedside: Team Huddle (with RN, RT, Family, SW and Physician if applicable) to review above Plan and answer questions done: N✓

3. Fill in WOS Care Plan with Y/N or using the free text. See sample above.

4. Use Modify function if there are new updates to add to the WOS Care Plan (for example, after the final team huddle is done.) Do not start new WOS Care Plan.

Add Sign Forward Provider Letter Modify In Error Preview

List

Display: All Advanced Filters

Arranged By: Date	Newest At Top
Interdisciplinary Care Plan	11-Jul-2023 15:56:07 PDT
WOS Care Plan	Train, ICU-Nurse10
Critical Care Progress Note	10-Jul-2023 09:19:18 PDT

* Final

TSDM: Jane Doe



Appendix B: Withdrawal of Organ Support (WOS) Checklist

Decision making and documentation	
<input type="checkbox"/>	The patient's capacity to make decisions and substitute decision maker have been recorded.
<input type="checkbox"/>	An interdisciplinary team (including consulting services where applicable) meeting has occurred with the patient and patient's family. The outcome has been documented in the Care Plan in the patient's chart in Cerner. If there are disagreements about the Care Plan, PHC's dispute resolution process has been initiated.
<input type="checkbox"/>	Orders for DNR-1 and ICU/HAU Comfort Care PowerPlan, have been signed by the MRP.
<input type="checkbox"/>	A description of WOS has been provided to the family and translation offered

Transitioning to Comfort Care and Preparing for WOS	
<input type="checkbox"/>	Offer unlimited/unrestricted family visiting and private space if possible.
<input type="checkbox"/>	For ambiance, remove as much equipment and technology as possible from the room.
<input type="checkbox"/>	Offer family an opportunity to participate in patient care.
<input type="checkbox"/>	Notify BC Transplant of the patient's imminent death.
<input type="checkbox"/>	Ensure patient and/or family have been offered the opportunity to donate organs and tissues, unless ineligible per BC Transplant
<input type="checkbox"/>	Symptom management is provided according to the order set and documented in MAR in patient's chart. See Appendix C .
<input type="checkbox"/>	Offer Wishing Well

Consultative supports	
<input type="checkbox"/>	Consult Spiritual Health for religious supports, bereavement counseling, emotional support and companionship through end-of-life process
<input type="checkbox"/>	The opportunity for social/religious/cultural observances has been offered, including an attempt to accommodate any last wishes of the patient using the Wishing Well.
<input type="checkbox"/>	A social work consultation has been considered and offered, where appropriate.
<input type="checkbox"/>	Palliative care consultation is considered and offered, where appropriate.

Family and team review	
<input type="checkbox"/>	RN to lead team huddle with patient and family prior to WOS, ensuring everyone understands their roles and actions that will occur prior to and following death.
<input type="checkbox"/>	Review the specific goals of symptom management with patient and family including: <ul style="list-style-type: none"> • medications used to treat possible symptoms • medication used to treat any anticipated symptoms not yet present
<input type="checkbox"/>	The pace and sequence of WOS including extubation are discussed and agreed upon in the care plan. Explain to family how patient will appear during and after extubation
<input type="checkbox"/>	Offer family an opportunity to be present for WOS and end-of-life care.
<input type="checkbox"/>	Ask family if monitoring can be turned off in the room
<input type="checkbox"/>	Post an unobtrusive signal so other critical care team members know that WOS is occurring.

This material has been prepared solely for use at Providence Health Care (PHC). PHC accepts no responsibility for use of this material by any person or organization not associated with PHC. A printed copy of this document may not reflect the current electronic version.



Appendix C: Sample Documentation of Symptoms and Medications in Cerner



HYDROmorphine (HYDROmorphine PRN range dose)

dose range: 0.1 to 1 mg, IV, q5min, PRN other (see comment), drug form: inj, start:
11-Jul-2022 14:14 PDT
PRN: for management of pain and discomfort. DILAUDID EQUIV. Administer for patie...



*Performed date / time : 11-Jul-2022 1701 PDT

*Performed by :

Witnessed by :

Last Documented Administration: 09-Jul-2022 14:52:00 PDT by Ivancic, Katarina, RN
HYDROmorphine 0.4 mg

Respiratory Rate: br/min

☐ Acknowledge Respiratory Rate [0 br/min, 11-July-2022 16:38 PDT](#) [Trend](#)

*HYDROmorphine: mg Volume : ml

Diluent : ml

*Route : Site :

Reason :

Total Volume : Infused Over :

11-Jul-2022 1600 PDT	11-Jul-2022 1700 PDT	11-Jul-2022 1800 PDT	11-Jul-2022 1900 PDT	11-Jul-2022 2000 PDT	11-Jul-2022 2100 PDT
	0.5				

☐ Not Given

Reason :

Comment



01
227
059

HYDROmorphine (HYDROmorphine PRN range dose)
dose range: 0.1 to 1 mg, IV, q5min, PRN other (see comment), drug form: inj, start:
11-Jul-2022 14:14 PDT
PRN: for management of pain and discomfort. DILAUDID EQUIV. Administer for patie...

*Performed date / time : 11-Jul-2022 1701 PDT

*Performed by :

Witnessed by :

Comment

Pt appears in discomfort as evidenced by increase in respiratory rate.

OK

Cancel

Total Volume : 0.5 Infused Over : 0

11-Jul-2022 1600 PDT	11-Jul-2022 1700 PDT	11-Jul-2022 1800 PDT	11-Jul-2022 1900 PDT	11-Jul-2022 2000 PDT	11-Jul-2022 2100 PDT
	0.5				

☐ Not Given

Reason :

Comment



Appendix D: Wishing Well: Pamphlet for Patients and Families



Wishing Well seeks to humanize & dignify the illness process while in the critical care units at St. Paul's Hospital

Patients & families are invited to share wishes that can be done as a way to bring the focus on the patient, rather than their critical illness

Contact Us

Wishing Well Leads:

Vini Bains:
vbains@providencehealth.bc.ca

Wynne Chiu:
wchiu@providencehealth.bc.ca

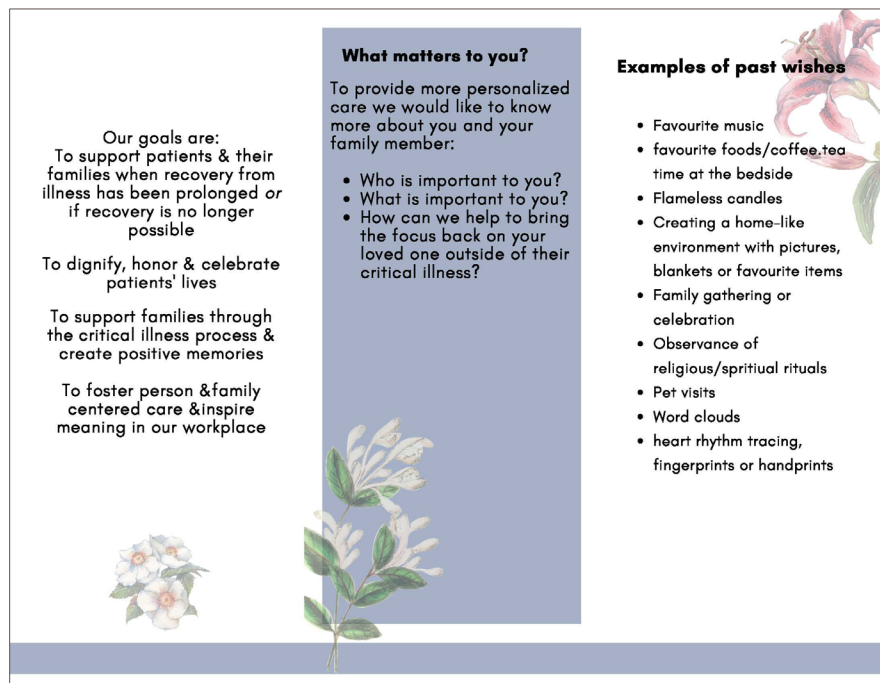
Wishing Well

Supporting patients and families during their critical illness


How you want to be treated.


Person and Family-Centred Care
Partners in care

We gratefully acknowledge support & mentorship of the 3 Wishes Project at Vancouver General Hospital & St. Joseph's Healthcare in Hamilton, Ontario



Our goals are:

- To support patients & their families when recovery from illness has been prolonged or if recovery is no longer possible
- To dignify, honor & celebrate patients' lives
- To support families through the critical illness process & create positive memories
- To foster person & family centered care & inspire meaning in our workplace

What matters to you?

To provide more personalized care we would like to know more about you and your family member:

- Who is important to you?
- What is important to you?
- How can we help to bring the focus back on your loved one outside of their critical illness?

Examples of past wishes

- Favourite music
- favourite foods/coffee/tea time at the bedside
- Flameless candles
- Creating a home-like environment with pictures, blankets or favourite items
- Family gathering or celebration
- Observance of religious/spiritual rituals
- Pet visits
- Word clouds
- heart rhythm tracing, fingerprints or handprints



Appendix E: Sample Unobtrusive Sign





Persons/Groups Consulted

Nurse Educator/Clinical Coordinator Palliative Care

Spiritual Health

Social Worker, Critical Care

Critical Care Clinical Nurse Leaders

Critical Care Nurse Educators

Critical Care Supervisors

Critical Care Clinical Nurse Specialist

Clinical Pharmacist, Critical Care

Physician Leads, ICU

Respiratory Therapy: Research, Education and Practice Coordinator

First Released Date:	17-JUL-2023
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Last Reviewed:	17-JUL-2023
Approved By: <i>(committee or position)</i>	PHC
	PHC Professional Practice Standards Committee
Owners: <i>(optional)</i>	PHC
	Critical Care