

Supplementary Material
Appendix A. Illustration of Logic Model
Identifying Warning Signs
Nurse Version

Goal: Patients & families (e.g. spouse, children, friends etc., where applicable) know the warning signs that may indicate health conditions are getting worse & what to do about them.

| LOGIC MODEL: Warning Signs | | | |
|---|---|---|--|
| What do you contribute? | What are you going to do? | What do you want at the end of the day? | |
| Inputs | Activities | Short-term Outcomes | Long-term Outcomes |
| <p>Who is to receive the intervention?</p> <ul style="list-style-type: none"> - Patients admitted for acute illness, acute exacerbation of chronic illness or injury who are being discharged home & are at risk for hospital readmission. - Families providing these patients with care/support after discharge from hospital. <p>Who is to deliver the intervention?</p> <p>Advanced Practice Nurse or Registered Nurses in collaboration with the healthcare team in hospital & at home.</p> <p>Patients & families at home.</p> | <p>Within 24 hours of admission to hospital:</p> <ul style="list-style-type: none"> - Assess what the patient & family already know about the potential warning signs specific to patient’s health condition(s) or surgical procedure & their ability to detect & respond to them at home. - Assess what they need to learn so that they know what to do at home. - Assess their learning or health literacy needs. <p>During hospital stay:</p> <ul style="list-style-type: none"> - Review evidence-based resources (online, unit or departmental, or other) to identify the signs & symptoms of worsening health condition(s) specific to patient’s condition(s) (e.g. shortness of breath, high blood sugar, dehydration) or surgical procedure (e.g. wound infection, deep vein thrombosis) & how to respond to them. - Obtain/prepare written educational information on warning signs relevant to patient’s condition(s) &/or surgical procedure(s), & when & how to seek medical help. Consider using symbols or pictograms based on | <p>Patient & family:</p> <ul style="list-style-type: none"> - Know the warning signs that indicate worsening health condition. - Know which warning signs to watch for. - Know what to do if warning signs are present. - Feel confident in managing warning signs. - Manage warning | <ul style="list-style-type: none"> - Prevention of health deterioration & complications - Reduced emergency room visits & hospital readmissions. |

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| | | Short-term Outcomes | Long-term Outcomes |
| <p>What is needed to deliver the intervention?</p> <ul style="list-style-type: none"> - Access to patient's medical record, care plan, & discharge instructions. -Access to evidence-based resources (online, unit/departmental, or other) that describe: 1) the patient's health conditions, 2) warning signs or signs & symptoms of potential complications & how to respond to them, 3) who to call if warning sign present, 4) which signs are emergencies & warrant an emergency department visit. - Private location to meet with patient &/or family. - Discharge instructions for patients/families summarizing: 1) warning signs that could be experienced by the patient, 2) how to monitor, recognize & respond to them, 3) when & who to call for medical | <p>patient's & family's health literacy to foster understanding. Provide patient & family written educational information on warning signs that is easy to understand.</p> <ul style="list-style-type: none"> -Teach patient & family about the warning signs specific to patient's conditions/surgical procedures (e.g. explain &/or demonstrate how to monitor, recognize & respond to them, when to get medical help, who to contact, & when to go to the emergency room) - Use teach back to determine understanding, i.e. ask patient & family to repeat information to make sure they know the warning signs, how to detect & respond to them, who & when to call if medical attention is needed & signs that require emergency attention. -Provide feedback to clarify misunderstanding. Ask patient/family to repeat information. <p>Within 24 hours before discharge:</p> <ul style="list-style-type: none"> - Review discharge instructions - Reinforce education on how to monitor, detect & respond to warning signs. - Use teach back. - Ensure they have the list of warning signs to monitor & what to do. <p>Within 24 - 48 hours after discharge:</p> <ul style="list-style-type: none"> - Conduct home visit - Review discharge instructions | signs effectively. | |

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|---|--|---|--------------------|
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| attention, including those that warrant an emergency visit. | <ul style="list-style-type: none"> -Assess patient's health condition & ask about experience with signs & symptoms that may indicate worsening health conditions or complications. -If warning signs present, discuss next steps based on assessment. -Ask patient & family if they have any questions about the warning signs. - Ask if they detected any & what they did. Validate their learning (e.g. let them know the positive steps they took). - Review warning signs with patient & family (e.g. how to watch for, detect them, & respond to them, when to get medical help, & who to contact). - Use teach back. - Reinforce the importance of monitoring for the warning signs, what to do if they are detected, & of contacting the appropriate healthcare provider if warning signs are present. <p>Month following discharge:</p> <ul style="list-style-type: none"> - Weekly home visit or telephone follow-up. -Provide daily telephone availability. -Ask about patient's condition, how patient & family are doing monitoring warning signs, if they detected any & what they did about them. -Validate the positive steps the patient & family took to reinforce learning. - Review warning signs & what to do if any are detected. - Use teach back. - Reinforce importance of monitoring for warning signs, & of contacting the appropriate healthcare provider if any | | |

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|---------------------------------------|--|---|--------------------|
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| | warning signs are present -Reinforce what to do & when & how medical attention should be sought. - Assesses the patient's & family's need for continued support in monitoring warning signs. | | |

Identifying Warning Signs Patient and Family Caregiver Version

Goal: Patients & families (e.g. spouse, relatives, friends) know the warning signs that may indicate health conditions are getting worse (e.g. trouble breathing) & what to do about them.

Who will receive this intervention? Patients being discharged from hospital & family who are providing them with care/support after discharge from hospital.

Who will provide this intervention? Nurses in collaboration with healthcare team in hospital & at home. Patients & families at home.

What does this intervention involve?

In hospital, within 24 hours of admission, the nurse assesses:

- What the patient & family already know about the warning signs & their ability to detect & respond to them at home.
- What they need to learn so that they know what to do at home.

During hospital stay, the nurse:

- Teaches the patient & family about the warning signs for the patient's conditions (e.g. how to watch out for, recognize & respond to them, when to get medical help, who to contact, & when to go to the emergency room).
- Asks the patient & family to explain this information back to make sure they understood it. Clarifies anything that was not understood & asks the patient & family to explain it back again.
- Gives them written information on the warning signs that is easy to understand.

In hospital, within 24 hours before discharge, the nurse:

- Reviews the warning signs again with the patient & family (e.g. how to watch out for, recognize & respond to them, when to get medical help, who to contact, & when to go to the emergency room).
- Asks the patient & family to explain this information back to make sure they understood it. Clarifies anything that was not understood & asks the patient & family to explain it back again.
- Makes sure they have the list of warning signs to watch out for & what to do.

At home, 24 – 48 hours after discharge, the nurse:

- Visits the patient & family at home to assess patient's health condition(s) & asks if they have any questions about the warning signs. Asks if they detected any & what they did about them. Validates their learning (e.g. lets them know the positive steps they took).
- Reviews the warning signs again with the patient & family (e.g. how to watch out for, recognize & respond to them, when to get medical help, who to contact, & when to go to the emergency room).
- Reinforces the importance of watching out for the warning signs & what to do if they are detected.

- Asks the patient & family to explain this information back to make sure they understood it. Clarifies anything that was not understood & asks the patient & family to explain it back again.

Month following discharge, the nurse:

- Contacts patient & family by phone any week that a home visit is not done. Asks about patient's condition, how they are doing watching out for warning signs, if they detected any & what they did about them. Validates the positive steps the patient & family took.
- Reviews warning signs, what to do, & when & who to call if any are detected.
- Reinforces the importance of continuing to watch out for the warning signs.
- Assesses the patient's & family's need for continued support.