POLICY AND PRACTICE

Decision-support tool for telephone triage — the Canadian experience

Lori Laudenbach

The concentration of expertise in haemophilia treatment centres means that patients in most countries live a considerable distance from their treatment centre. Telephone support between regular clinic visits is common practice. This article describes the six principles that broadly outline nurses' accountabilities when providing care over the telephone and discusses how they have been applied in practice with the Canadian Association of Nurses in Hemophilia Care (CANHC) telephone guidelines.

Key words: haemophilia, telephone, triage, guidelines

Haemophilia is a rare, inherited chronic health condition managed by interdisciplinary comprehensive care teams in haemophilia treatment centres (HTC) located in large urban centers. This model of chronic disease management, in conjunction with advancements in therapeutic modalities, has shifted care from hospital to home. Given the long distances that often exist between the patient and their specialised care team, reliance on provision of care over the telephone has become common practice.

In Canada, the Hemophilia Nurse Coordinator (HNC) is the primary point of access for patients with haemophilia and other inherited bleeding disorders. A key role of the HNC is to educate patients on bleed prevention, recognition and management with goals to promote self-care and to enhance quality of life. Patients will contact the HTC by phone seeking information and advice between routine assessment appointments at times of suspected bleeding or following injury. It is the responsibility of the HNC to triage patient calls in a safe and timely manner

Nursing telephone triage is not simply message taking; rather, it is the assessment and disposition of symptom-based calls. It involves the collection of sufficient data, the recognition and matching of symptom patterns and assigning acuity. Nursing telephone triage helps get the patient the right level of care, from the right provider, in the right place and in the right time [1].

There are six principles that broadly outline nurses' accountabilities when providing care over the telephone and can be used to guide individual practice as outlined by the College of Nurses of Ontario [2].

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Principle 1: Therapeutic nurse-client relationships

The HNC is accountable for establishing and maintaining the therapeutic nurse-client relationship when using the telephone in the provision of care. By using professional nursing knowledge and skill with a caring attitude and behaviour, a relationship built on trust and respect is more likely to occur. Visual prompts, gestures and physical contact are missing making communication by telephone more challenging. Communicating effectively is central and can be enhanced through asking open-ended questions in a logical sequence, with attention and sensitivity to the patient's level of understanding. Asking leading questions and use of medical jargon are to be avoided. Listening for verbal, emotional and behavioural cues that may convey important information is essential. Where possible, always speak directly to the patient. It is important to avoid premature conclusions regarding a patient's situation or problem and to avoid premature closure of the call.

Principle 2: Providing and documenting care

Provision of care begins when the HNC answers the telephone. The HTC needs to provide a physical environment that will support the HNC in maintaining confidentiality during the call and while updating the patient health record. Starting with a documentation form, rather than a protocol, guideline or algorithm is important to ensure a systematic approach to the collection of data. Once a general sense of the problem emerges, the use of

a guideline that best matches the patient's presenting problem will serve to ensure the safest course of action. The Canadian Association of Nurses in Hemophilia Care (CANHC) created telephone guidelines for specific problems in common inherited bleeding disorders to be used as decision support tools when providing care over the telephone. The distinction between decision support and decision making tools honours nurses' professional judgement. A disposition-based template modeled after Julie Briggs telephone triage protocols for nurses was used [3,4]. Each of the 16 guidelines includes key questions, identifies symptoms that require emergent, urgent, acute or non-acute medical attention, as well as home care instructions. Eleven of the guidelines are repoduced here:

- Joint bleed (page 32)
- Muscle bleed (page 33)
- Soft tissue bleed (page 34)
- Epistaxis (page 35)
- Gastrointestinal bleed (page 35)
- Haematuria (page 36)
- Head injury/bleed (page 36)
- Menorrhagia (page 37)
- Post-operative bleeding (page 38)
- Allergic reaction (page 39)
- Immunization (page 40).

Use of the CANHC Telephone Guidelines as a decision support tool serves to collect data systematically and enhances pattern recognition. Their use decreases the likelihood of overlooking important facts. They function as a checklist to prevent oversights, decrease ambiguity, supplement knowledge deficits and help a busy HNC focus. The guidelines are evidenced-based and have been reviewed by members of the Association of Hemophilia Clinic Directors of Canada (AHCDC). Every effort was made to ensure that the guidelines were valid, reliable, clinically applicable, flexible and clear, although to date, this has not been studied.

Once a detailed and structured history has been obtained through use of a documentation form and problem specific guideline, the implementation phase of telephone triage is the advice given regarding patient disposition. The HNC provides follow-up instructions, with a disclaimer to the caller. To ensure that the caller understands the plan of care, it is helpful to request that the caller repeat the advice given. Ask if the caller has any outstanding questions. Permit the caller to disconnect first.

Nurses are required to document care provided to patients through telephone contact in accordance with their licensing body and employer. Documentation provides a record of the quality of care provided. It enhances communication among the interdisciplinary care team. Lack of documentation leaves a HNC vulnerable to a malpractice claim. It is presumed that if it is not documented, it was not done. The documentation form should indicate the need to capture the date and time of the call, the name and number of the caller, patient

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identification and reason for the call. Free text space for recording a detailed and structured history, a clear description of the recommended disposition and advice regarding home care instructions is required. Identification of the telephone guideline used will provide supportive documentation for the disposition decision arrived at by the HNC

Principle 3: Roles and responsibilities

The HNC is responsible for recognising whether he or she has the knowledge, skill and judgement to meet the needs of the patient. Provision of care over the telephone requires advanced communication skills and competencies that overcome the barriers to data collection in the absence of face-to-face contact. Until such time that the HNC has acquired sufficient foundational disease-specific knowledge and has become familiar with his or her patient population, provision of care over the telephone may take the form of message taking, rather than advice giving. The HTC environment needs to be supportive to reduce risks associated with telephone triage. A more experienced HNC or the medical consultant needs to be both available and approachable for the novice HNC to consult with to aid in sound decision-making regarding patient disposition. A supportive practice environment is also enhanced through clear and identified practice support tools, such as the CANHC Telephone Guidelines.

Principle 4: Consent, privacy and confidentiality

Provision of care over the telephone is subject to the same college standards and government legislation. Consent is implied with most telephone triage situations. When a

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patient calls it is important that HNCs identify themselves and the nature of the help they can provide. All personal health information must be kept confidential. Ensure that both the caller and the HNC are in a secure environment where privacy will be ensured. It is imperative that the HNC understands what constitutes a breach of confidentiality such as:

- Discussing patients where others can hear
- Releasing information without permission
- Leaving a message on an answering machine
- Leaving documents where others can see
- Not shredding documents.

Principle 5: Ethical and legal considerations

Each HNC is accountable for his or her own actions. Answering the telephone establishes a duty of care and it is a nurse's duty to do no harm. Use of the telephone in caring for patients increases risk to the nurse. Risks are reduced by establishing and maintaining a therapeutic nurse-patient relationship and by ensuring that patient information is secure.

Principle 6: Competencies

Nurses providing telephone triage require nursing knowledge, judgement and skill beyond that expected from an entry-level nurse. In depth clinical knowledge and strong skills in assessment, communication, critical thinking and evidence-informed decision-making are critical for nurses providing advice to patients without the benefit of face-to-face contact [5]. The HNC needs to possess current and in-depth knowledge related to the care and treatment of patients affected by an inherited bleeding disorder. The HNC is expected to practice within scope and to develop skills through continuing education and mentorship program.

Conclusion

Use of telecommunication technologies by nurses in the delivery of care for patients with specialised health care needs continues to evolve. Use of standardised, evidence-based telephone guidelines is one tool that the HNC can use to minimise risk when providing care to patients over the telephone. Decision support tools, however, do not replace professional judgement. HNCs must know and function within their scope of practice and maintain accountability for their clinical decisions and patient outcomes.

Acknowledgement

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Each protocol was reviewed and approved by a Hemophilia Clinic Director prior to printing and circulating to the membership.

In 2013, CANHC – Ontario Region was tasked with reviewing and updating the protocols. A decision was made to replace "protocol" with "guideline" to reflect HTC host hospital differences in approaches to telephone triage.

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Joint bleed

KEY QUESTIONS
- Cause Trauma, No Known Cause
- Joint Health (ROM, strength, muscle atrophy, previous surgeries range of motion)
- Target Joint
- X-rays taken?

When in doubt, treat with clotting agent and assess at nearest hospital

SEEK URGENT MEDICAL CARE IF
- Extremity cold, pale, blue, tingling or numb (compartment syndrome?)
- Severe, pronounced swelling (comparative measurements)
- Unable to flex or extend affected joint
- Unmanageable pain

SEEK MEDICAL CARE
WITHIN 2 HOURS AT NEAREST HTC / HOSPTIAL IF:
- Unable to weight bear (if lower extremity)
- Redness, red streaks/tracking, warmth, fever (signs of infection)
- Decreased or limited range of motion
- History of recent joint injury (twist or misuse)
- Severe pain, especially increased with joint movement or weight bearing
- Swelling (comparable measurement)
- Favouring limb or is limping

WITHIN 24 HOURS WITH HTC /PHYSICIAN IF:
- Stiffness
- Pain persist or worsens with rest or movement (walking, standing, raising leg, flexing foot)
- Not responding to factor replacement

TREAT WITH CLOTTING AGENT AS ORDERED (home or hospital)
FOLLOW HOME CARE INSTRUCTIONS: compression, non-weight bearing, pain medications, rest, elevation

HOME CARE INSTRUCTIONS:
R I C E Replacement/Rest/Ice/Compression/Elevation
- Rest joint.
- Apply ice for 15 minutes every 2 hours for the first 24-48 hours. Place a damp layer of cloth between ice and bare skin. Do not put ice directly on skin. Ice will help with pain management and swelling but does not stop the bleed.
- Compression (i.e. tensor bandage).
- Elevate affected area, crutches for weight bearing joint.
- Take usual medication (non-acetylsalicylic acid, non-ibuprofen) for pain, swelling, redness or fever.
- Do not massage the area.
- Seek medical attention immediately if increase in symptoms of pain, swelling, redness or fever

Home clotting factor use: follow up treatments may be needed.
Obtain orders from haematologist regarding dose and intervals

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With thanks, reviewed by AHCDC haematologist and CPHC: Dr Anthony Chan

Muscle bleed

KEY QUESTIONS
- Cause Trauma, No Known Cause
- Site of bleed
- Assessment of pain function
- Swelling
- Any investigations performed: ultrasound, x-ray
- Previous health of muscle involved, any signs of atrophy, weakness, repeated bleed site?

When in doubt, treat with clotting agent and assess at nearest hospital

SEEK URGENT EMERGENCY CARE IF:
- Extremity cold, blue in colour, tingling or numb distal to the affected area
- Severe, swelling (compare to unaffected side) (compartment syndrome?)
- Unable to use the affected limb

SEEK MEDICAL CARE
WITHIN 2 HOURS AT NEAREST HTC / HOSPTIAL IF:
- Severe pain
- Increase in size
- Unable to use muscle area
- Severe injury to muscle/area
- Walking or standing in an unusual way (affected gait pattern?)
- Pain in the back, hip, groin or front of thigh
- Red streaks/tracking, warmth, fever (signs of infection)

WITHIN 24 HOURS WITH HTC /PHYSICIAN IF:
- Pain persists or worsens with rest or movement (walking, standing, raising leg, flexing foot)
- Decreased range of motion to joint proximal or distal to the injured site
- Not responding to factor replacement

TREAT WITH CLOTTING AGENT AS ORDERED
(home or hospital)
FOLLOW HOME CARE INSTRUCTIONS: compression, non weight bearing, pain medications, rest, elevation

HOME CARE INSTRUCTIONS:
R I C E Replacement/Rest/Ice/Compression/Elevation
- Rest joint.
- Apply ice for 15 minutes every 2 hours for the first 24-48 hours. Place a damp layer of cloth between ice and bare skin. Do not put ice directly on skin. Ice will help with pain management and swelling but does not stop the bleed.
- Compression (i.e. tensor bandage).
- Elevate affected area, crutches for weight bearing joint.
- Take usual medication (non-acetylsalicylic acid, non-ibuprofen) for pain, swelling, redness or fever.
- Do not massage the area.
- Seek medical attention immediately if increase in symptoms of pain, swelling, redness or fever

Home clotting factor use: follow up treatments may be needed.
Obtain orders from haematologist regarding dose and intervals

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Developed by the Telephone Advice Working Group of the Canadian Association of Nurses in Hemophilia Care, 2001.
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Soft tissue bleed

KEY QUESTIONS
- Cause Trauma, Spontaneous?

SEEK URGENT MEDICAL CARE IF
- Large gaping wound to the lower back, chest, abdomen, and extremities, back of head, neck, eye, and mouth
- Difficulty breathing

SEEK MEDICAL CARE
WITHIN 2 HOURS AT NEAREST HTC / HOSPTIAL IF:
- Severe swelling at the site of injury.
- Severe pain.
- Limited movement of the affected area.
- Multiple bruises of unknown origin, suspicious of non-accidental injury.
- Signs of infection; increased pain or swelling, redness, fever, red streaks/tracking extending from the injured area.
- Child favouring a limb or limping.
- Cut or wound that keeps bleeding despite constant pressure to site for > 20 minutes

WITHIN 24 HOURS WITH HTC /PHYSICIAN IF:
- Stiffness
- Pain on movement

ROUTINE APPOINTMENT WITH HTC /PHYSICIAN IF:
- Slight bruising
- Small laceration with edges of wound well approximated and bleeding controlled
- Minor discomfort

TREAT WITH CLOTTING AGENT AS ORDERED
(home or hospital)
FOLLOW HOME CARE INSTRUCTIONS: compression, non weight bearing, pain medications, rest, elevation

TREAT WITH CLOTTING AGENT AS ORDERED

HOME CARE INSTRUCTIONS:
R I C E Replacement/Rest/Ice/Compression/Elevation
- Rest joint.
- Apply ice for 15 minutes every 2 hours for the first 24-48 hours. Place a damp layer of cloth between ice and bare skin. Do not put ice directly on skin
- Compression (i.e. tensor, Ace bandage).
- Elevate affected area
- Do not rub or massage the area
- **Cover wound with a dry dressing and check daily for signs of infection**

Home clotting factor use: follow up treatments may be needed
Obtain orders from haematologist regarding dose and intervals

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With thanks, reviewed by AHCDC haematologist Dr. Lawrence Jardine

Epistaxis

KEY QUESTIONS

- Cause: Trauma, injury, spontaneous, URTI, foreign body, Platelet count, dry air, medications, allergies

When in doubt, treat with clotting agent and assess at nearest hospital

SEEK URGENT EMERGENCY CARE NOW IF:

- Sudden pronounced drowsiness, decreased LOC.
- Tachycardia.
- Tachypnea, shortness of breath

SEEK MEDICAL CARE
WITHIN 2 HOURS AT NEAREST HTC / HOSPITAL IF:

- Dizzy
- Unable to stop bleeding after 30 minutes of constant pressure
- Vomiting blood or "coffee ground" looking material
- Foreign body in the nose
- Recent nasal surgery
- Recent injury to the nose

WITHIN 24 HOURS WITH HTC /PHYSICIAN IF:

- More than 3 nosebleeds in the past 48 hours lasting 30 minutes or longer)
- Known high blood pressure
- Frequent use of inhaled substances (i.e. cocaine, medicated nasal sprays)

ROUTINE APPOINTMENT WITH HTC/PHYSICIAN IF:

- Allergies
- Recurrent controlled nosebleeds

TREAT WITH CLOTTING AGENT/ANTIFIBRINOLYTIC AS ORDERED (home or hospital)
FOLLOW HOME CARE INSTRUCTIONS

HOME CARE INSTRUCTIONS:

- In a sitting position, head bent forward, firmly pinch the nose (over the nostril, below the bony part) for 15 minutes with an ice cold wash cloth. Breathe through the mouth. If bleeding stops then happens again, repeat pinching the nose closed for 15 minutes, or apply nasal clamp Cauterizing and packing are not routinely recommended, and are considered carefully only under the supervision of a hemophilia hematologist
- Clotting agent, antifibrinolytic or nasal sponges per physician order
- Trim children's fingernails and discourage nose picking
- Avoid strenuous activity after nosebleed for 24 hours
- Use saline nasal drops or spray to keep nostrils moist
- Lubricate inside of nostrils twice daily with petroleum jelly
- Humidity in bedroom while sleeping

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Gastrointestinal bleed

KEY QUESTIONS

- Cause, vomiting or diarrhea, frank blood or coffee grounds?
- What is the last platelet count?
- HIV status, Hepatitis B or C status, liver disease?
- Any new medications?
- Location of pain?
- Acute onset or chronic pain?
- Bowel habits?
- Any urinary tract symptoms (dysuria, frequency, etc)?
- Rate pain = 0/10 (zero being no pain, ten being the worse pain ever)

When in doubt, treat with clotting agent and assess at nearest hospital

SEEK URGENT MEDICAL CARE IF:

- Black or frank blood stools
- Light headedness or dizziness
- Tachycardia, headache
- Fever
- Lethargy
- Peritoneal symptoms ("hard abdomen")

ROUTINE APPOINTMENT WITH HTC /PHYSICIAN IF:

- One single episode of scant amount of frank blood around stool or on tissue.
- No other symptoms stated above.

TREAT WITH CLOTTING AGENT AS ORDERED (home or hospital)
FOLLOW HOME CARE INSTRUCTIONS

HOME CARE INSTRUCTIONS:

- Take factor concentrate as ordered for home infusion.
- Do not eat or drink anything (NPO).
- Contact HTC, see family physician or go to nearest emergency department.

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Developed by the Telephone Advice Working Group of the Canadian Association of Nurses in Hemophilia Care, 2001. Reviewed by AHCDC members: Dr Manuel Carcao

Haematuria

KEY QUESTIONS

- Pain?
- Frequency? Urine colour (brown, pink, red, clots)?
- Difficulty passing urine? Recurrent episode? Fever? Trauma?
- Date of last menstrual period if applicable

Avoid all antifibrinolytic agents such as tranexamic acid; when in doubt, assess at nearest hospital

SEEK URGENT EMERGENCY CARE IF:

- Sudden pronounced drowsiness, or decreased consciousness
- Heart rate is fast, speeding (tachycardia)
- Rapid breathing, short of breath
- Trauma to back, side or abdomen, fall, accident or recent surgery

TREAT WITH CLOTTING AGENT AS ORDERED to raise factor level above 50% (home or hospital)

SEEK MEDICAL CARE
WITHIN 2 HOURS AT NEAREST HTC / HOSPITAL IF:

- Patient is lightheaded, feverish or vomiting
- Abdominal pain or backside (flank) pain.

CLOTTING FACTOR AS ORDERED: home care (compression, non-weight bearing, pain meds, rest, elevation)

WITHIN 48 HOURS WITH HTC /PHYSICIAN IF:

- Painless haematuria

Complete bed rest and vigorous hydration (3 litre/m^2 body surface area) for 48 hours

If hematuria persists, TREAT WITH CLOTTING AGENT AS ORDERED; evaluation by an urologist is essential if haematuria persists or if repeated episode

ROUTINE APPOINTMENT WITH HTC /PHYSICIAN IF:

- Single episode of painless haematuria episode that resolves within 48 hours

HOME CARE INSTRUCTIONS:

- Increase fluid intake (1.5 times maintenance x 48 hours).
- Rest for all, (complete bed rest if active bleeding).

Do not take antifibrinolytic agents such as tranexamic acid; they may cause clots to form in the urine collecting system, resulting in blockage

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Reviewed by AHCDC haematologist: Dr Elianna Saidenberg

Head injury/bleed

KEY QUESTIONS

- Cause trauma or sponatneous

When in doubt, treat with clotting agent and assess at nearest hospital

SEEK URGENT EMERGENCY CARE IF:

- Difficult or abnormal breathing
- Dizziness, change in balance or coordination
- Blood/fluid drainage from ears, nose or mouth with no known injury to these areas
- Sleepiness, difficult to arouse
- Confusion or agitation
- Change in normal behaviour
- A headache that is getting worse or will not go away
- Younger children...may be hard to settle or high pitched cry
- Difficulty moving arms or legs, weakness
- Slurred speech, blurred or double vision
- Seizure, twitching of limbs, facial tic
- Persistent vomiting

SEEK MEDICAL CARE
WITHIN 2 HOURS AT NEAREST HTC / HOSPTIAL IF:

- Haematoma, bruise or wound (injury to the head)
- Bruising under eyes or behind the ears
- Intermittent headache that responds to analgesia
- Intermittent nausea

TREAT WITH CLOTTING AGENT AS ORDERED (home or hospital); FOLLOW HOME CARE INSTRUCTIONS

HOME CARE INSTRUCTIONS:

- Apply ice to the affected area for 15 minutes, every 2 hours for 24–48 hours. Place a damp layer of cloth between ice and bare skin. Do not put ice directly on skin
- Allow sleep after injury. Awaken every 2 hours for 24 hours to determine level of alertness/responsiveness
- Avoid heavy activity for at the least 24 hours. Rest with the head slightly elevated
- Take pain medication as recommended by your physician (non-acetylsalicylic acid, non-ibuprofen)
- Avoid use of alcohol or sedatives for 24 hours after injury or bleed
- Monitor for any changes in alertness, balance, nausea/vomiting or vision changes. Report changes immediately to HTC or seek emergency care

*Report all head injuries to your HTC.

WHEN IN DOUBT TREAT WITH CLOTTING AGENT AND ASSESS AT NEAREST HOSPITAL

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Menorrhagia

KEY QUESTIONS
- Time in cycle?
- Prepubertal or post menopause/hysterectomy?
- History of sexual abuse
- History of fatigue/low iron?

WHEN IN DOUBT, GO TO NEAREST HOSPITAL FOR ASSESSMENT

SEEK URGENT EMERGENCY CARE IF:
- Severe persistent pain (abdominal, pelvic, shoulder)
- Fainting, lightheadedness (postural hypotension)
- Unusually heavy vaginal bleeding (> 1 maxi pad per hour)
- Post-partum heavy bleeding (1 soaked pad/hour +clots)

TREAT WITH CLOTTING AGENT/ANTIFIBRINOLYTIC AS ORDERED (hospital)

SEEK MEDICAL CARE
<u>WITHIN 2 HOURS</u> AT NEAREST HTC / HOSPITAL IF:
- Unexplained fever (>38°C/100.4°F) and abdominal pain
- Passing clots
- Dizziness when sitting/standing (postural hypotension)
- Possible pregnancy and bleeding
- Using tampons and sudden high fever (toxic shock?)
- Sunburn type rash, peeling skin on hands or feet
- General ill feeling, vomiting, watery diarrhoea
- Rapid pulse, headache

<u>WITHIN 24 HOURS</u> WITH HTC/GP/OBGYN/ER IF:
- If severe cramping continues despite use of analgesics leading to missing school, work, or daily routine activities.
- Persistent vaginal bleeding >10 days or < 21 days between periods
- Post-menopausal vaginal bleeding

<u>ROUTINE APPOINTMENT</u> WITH HTC / PHYSICIAN IF:
- Persistent pain after bleeding stops
- Late period and history of increased stress, strenuous activity, significant weight loss, recent illness, stopped taking birth control pills or is >40 years old
- Light bleeding or abdominal pain mid cycle
- No improvement with home care regimen

TREAT WITH CLOTTING AGENT/ANTIFIBRINOLYTIC AS ORDERED

FOLLOW HOME CARE INSTRUCTIONS

HOME CARE INSTRUCTIONS:
R I C E Replacement/Rest/Ice/Compression/Elevation
- Take usual medication (non-acetylsalicylic acid, non-ibuprofen) for pain relief.
- Change tampons frequently (at least every 4 hours). Use pads at night.
- Avoid tampons if there is a skin infection near genitals.
- If period is > 2 weeks late, test for pregnancy.
- For pre menstrual symptoms - decrease salt, caffeine and sugar intake.
- Increase exercise to help reduce cramping and pre menstrual symptoms

Normal menstruation:	Cycle: 21 – 35 days	Duration 3 – 7 days	Amount < 80 ml / cycle
Abnormal menstruation:	Cycle: change in pattern	Duration: > 7 days	Amount: socially limiting

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Developed by the Telephone Advice Working Group of the Canadian Association of Nurses in Hemophilia Care, 2001.
With thanks, reviewed by AHCDC haematologists: Dr. P. James, Dr. M. Silva, & Dr. D.Lillicrap

Postoperative bleeding

KEY QUESTIONS
- Date and type of procedure?
- Source of bleed?
- Suture and/or drains present?

When in doubt, treat with clotting agent and assess at nearest hospital

SEEK URGENT MEDICAL CARE IF
- Wound is gaping.
- Profuse bleeding (quantify number of dressing pads, bandages)
- Persistent amount of fluid/blood/drainage coming from site
- Difficulty breathing or swallowing
- Sudden swelling at site
- Severe pain
- Feeling faint, dizziness, weak
- Feeling cold, clammy
- Heart is racing; palpitations

SEEK MEDICAL CARE
WITHIN 2 HOURS AT NEAREST HTC / HOSPTIAL IF:
- Persistent bleeding despite home care measures
- Increased pain despite home care measures
- Increased swelling despite home care measures
- Fever
- Dizziness

WITHIN 24 HOURS WITH HTC /PHYSICIAN IF:
- Persistent oozing/drainage, pain.
- Swelling has not decreased/improved

ROUTINE APPOINTMENT WITH HTC /PHYSICIAN IF:
- Bleed/drainage does not resolve after home care treatment plan with clotting agents
- Incision/wound appears delayed in healing

TREAT WITH CLOTTING AGENT AS ORDERED
(home or hospital)
FOLLOW HOME CARE INSTRUCTIONS

HOME CARE INSTRUCTIONS:
- Take Factor concentrate as ordered by hematologist for the specific procedure
- If antifibrinolytics (tranexamic acid) ordered, inquire if they are being taken as prescribed
- Take prescribed medication (non-acetylsalicylic acid, non-ibuprofen) for pain relief
- Rest/elevate affected area when applicable
- Maintain compression bandages/casts/packing etc. as required
- Maintain increased fluid intake x 24 hours until bleeding stops
- Daily physical activity as per surgeon's instructions

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With thanks, reviewed by AHCDC haematologist Dr J Tietel

Allergic reaction

KEY QUESTIONS

- Factor product being used? (Factor IX increased risk of anaphylaxis)
- Number of exposures to factor or medication?
- What are the symptoms? Rash (hives), urticaria, angioedema (facial swelling), vomiting/diarrhea, abdominal pain, fever, palpitations/irregular heart rate, flushing of face, coughing, difficulty breathing

** Recognize that two or more systems involved, regardless if airway is affected or not, it is considered anaphylaxis and patient should call 911

Cause: Medication/ Factor concentrate taken

SEEK URGENT EMERGENCY CARE IF:

- Difficulty breathing
- Wheezing
- Difficulty swallowing or speaking
- Swelling of tongue or back of mouth, tingling/ "funny feeling" on tongue or in mouth
- Fainting and/or dizziness
- Chest pain
- Palpitations / tachycardia
- Swelling in face (angioedema) /extremities
- Hoarse voice ("potato voice")

DISCONTINUE USE OF MEDICATION/ FACTOR CONCENTRATE

TREAT WITH EPINEPHRINE (i.e. EPIPEN®) IF PATIENT HAS ACCESS TO ONE AT HOME

TAKE ANTIHISTAMINE (i.e. Diphenhydramine HCl 1mg/kg PO)

FOLLOW HOME CARE INSTRUCTIONS

SEEK MEDICAL CARE
<u>WITHIN 2 HOURS</u> AT NEAREST HTC / HOSPITAL IF:

- Rash or hives
- Vomiting or diarrhoea
- Palpitations / tachycardia
- Swelling in face (angioedema) /extremities
- Hoarse voice ("potato voice")

DISCONTINUE USE OF MEDICATION/ FACTOR CONCENTRATE

TAKE ANTIHISTAMINE (i.e. Diphenhydramine HCl 1mg/kg PO)

FOLLOW HOME CARE INSTRUCTIONS

<u>WITHIN 24 HOURS</u> WITH HTC /PHYSICIAN IF:

- Persistent rash, fever, fatigue, headache.
- Itching of palms of hands or soles of feet

<u>ROUTINE APPOINTMENT</u> WITH HTC / PHYSICIAN:

- To identify the allergen
- To re-assess treatment of allergic reaction
- To find alternate treatment plan for bleeding disorder

TREAT WITH CLOTTING AGENT AS ORDERED
FOLLOW HOME CARE INSTRUCTIONS

HOME CARE INSTRUCTIONS:

Discontinue use of medication/factor concentrate

- Record the reaction and the lot number of medication that caused the reaction
- Do not infuse when you are alone
- Rest
- Avoid hot showers; heat can increase itching
- Try baking soda or oatmeal baths or OTC topical preparations for hives and itching (i.e. Benadryl®)

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Developed by the Telephone Advice Working Group of the Canadian Association of Nurses in Hemophilia Care, 2001. Reviewed by AHCDC haematologist: Dr Manuel Carcao

Immunizations

KEY QUESTIONS
- Date and type of immunization?
- Is it a multi-step immunization?
- Is this the first exposure to this immunization?

*cross reference with muscle bleed and allergic reaction guidelines as required

SEEK URGENT MEDICAL CARE IF:

- Difficulty breathing
- Wheezing
- Difficulty swallowing or speaking
- Swelling of tongue or back of mouth, tingling/ "funny feeling" on tongue or in mouth
- Fainting and/or dizziness
- Chest pain
- Palpitations / tachycardia
- Swelling in face (angioedema) /extremities
- Hoarse voice ("potato voice")
- History of previous anaphylaxis to same allergen.

SEEK MEDICAL CARE
WITHIN 2 HOURS AT NEAREST HTC / HOSPTIAL IF:
- High fever 40.6°C – oral (1050°F)
- Redness or swelling at injection site larger than 5 cm (2 inches)
- Rash or hives
- Nausea and/or vomiting, diarrhea

ROUTINE APPOINTMENT WITH HTC /PHYSICIAN IF:
- Persistent mild fever 38.3–39.4°C – oral (101–103°F)
- Pain or tenderness at injection site for longer than 3 days
- Child is irritable, not sleeping or eating as per his/her usual self

TREAT WITH CLOTTING AGENT AS ORDERED - IF A SOFT TISSUE?MUSCLE BLEED
(home or hospital)

FOLLOW HOME CARE INSTRUCTIONS

HOME CARE INSTRUCTIONS:
- Take usual medication (non-acetylsalicylic acid, non-ibuprofen) for pain relief
- Rest affected area
- Apply ice to area for 15 minutes every 2 hours for first 24-48 hours. Place damp layer of cloth between ice and bare skin. Do not put ice directly on skin
- Do not massage area
- Seek medical attention immediately if increase in symptoms of pain, swelling, redness, fever or changes in level of consciousness

Teaching for Common Reactions to routine immunizations:
- Tenderness at injection site lasting 24–48 hours
- Mild fever (38.9°C/102°F or less) lasting 24–48 hours
- Mild drowsiness, decrease in appetite 24–48 hours

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