Sample Decision Trees
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Medical Conditions and Massage Therapy: A Decision Tree Approach.
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Sample Decision Tree for Blood Clot
From Chapter 11, Cardiovascular Conditions

Deep vein thrombosis (DVT)
Medical Information

Essentials
- Formation of an abnormal blood clot within a vein, usually in a lower extremity
- Diagnosed by ultrasound, d-dimer tests, clinical presentation
- Signs, symptoms typically unilateral, lower extremity
- Palpable thrombus, discoloration (pallor, blue or blue-red tinge to skin), superficial venous dilatation
- Signs of inflammation (swelling, warmth, redness)
- Pain, tenderness to touch
- Asymptomatic in 30-50% of cases
- Risk factors include recent major surgery, trauma, prolonged bedrest (> 72 hrs), paraplegia, DVT or thrombophlebitis, history, advanced age (60 or 65+), prolonged sitting (> 4 hrs car or plane trip), cancer/cancer treatment, other cardiovascular conditions, obesity; see text for complete list

Complications
- Pulmonary embolism (PE) (shortness of breath, chest pain, cough, bloody sputum, rapid heart rate, rapid breathing, anxiety, restlessness, feeling of doom, fainting, loss of consciousness)
- Chronic venous insufficiency (CVI), edema, ulceration, increased DVT risk

Medical treatment
- Anticoagulants
- Antiplaetlets
- Thrombolytics
- Thrombectomy (surgical removal - rare)
- Compression stockings (routine)
- Vena cava filter

Effects of treatment
- Easy bruising or bleeding
- Slightly elevated risk of bruising/bleeding
- Unstable tissues; high-risk of hemorrhage
- See Surgery, Chapter 21, for side effects, complications
- Can be warm, uncomfortable, difficult to pull on
- DVT risk may continue or increase; is not fully effective against PE

Massage Therapy Guidelines

- Diagnosed DVT (Scenario 1 in text):
  Avoid all contact at diagnosed sites and all sites of DVT risk

- Signs and symptoms of DVT (Scenario 3 in text):
  For undiagnosed, nonspecific symptoms (could be DVT or something else), assess whether to use Suspected DVT Principle, DVT Risk Principle I, both DVT Risk Principles, or some combination (see text); consider site of signs or symptoms; consider number of signs, symptoms, risk factors
  - Follow DVT Risk Principle I; avoid contact on symptomatic extremity; strongly urge medical referral for diagnosis
  - As with any undiagnosed inflammation, avoid aggravating it and make medical referral for diagnosis; follow DVT Risk Principle I (pressure level 1; or even no contact); be mindful that swelling is a strong indicator of DVT (most highly specific)
  - If pain is unexplained, worsens with standing or walking, or if accompanied by other signs/symptoms/risk factors, make medical referral and follow DVT Risk Principle I; do not aggravate tenderness (maximum pressure = level 1)
  - Consider risk factors, below

- Elevated DVT risk with no symptoms (Scenario 4 in text):
  Follow DVT Risk Principle I and II (especially with single, strong risk factor, or multiple risk factors)

- Pulmonary embolism (Scenario 2 in text):
  If signs/symptoms, immediate medical referral: contact emergency medical services
  If history of PE, follow DVT Risk Principle I indefinitely

- Avoid circulatory intact at site of edema; inspect skin and avoid contact at ulceration; continue DVT Risk Principles

- Use gentle joint movement overall, cautious pressure overall (level 1-2 max); with physician approval, can use pressure level 3 overall
- If injected, avoid circulatory intact at injection site until medication absorbed (usually 4-5 hours)
- Slight pressure adjustment overall (pressure level 3 max; level 4 may be possible)
- Work closely with client’s physician and nursing staff; limit overall pressure to level 1
- Follow the Procedure Principle; see Surgery, Chapter 21
- Avoid lubricant on stockings; lubricant on skin can make it more difficult to pull on
- Avoid deep pressure at abdomen; continue DVT Risk Principle I indefinitely
# Sample Decision Tree for Female Infertility

From Chapter 19, Reproductive System Conditions

## Medical Information

### Essentials
- Inability to conceive within 1 year of trying to get pregnant
- Contributing factors: endometriosis, uterine fibroids, polycystic ovary syndrome, blocked/inflamed reproductive structures, cancer treatment, hormonal problems, other medical conditions

### Complications
- Emotional effects include depression, grief, guilt, diminished self-esteem, fear of judgment, feelings of isolation

### Medical treatment
- **Fertility medications (Clomid, Serophene)**
- **Gonadotropins (follicle-stimulating hormone, human chorionic gonadotropin, human menopausal gonadotropin)**
- **Bromocriptine**
- **Metformin**
- **Surgery (removal of adhesions, endometrial growths; unblocking tubes)**

### Effects of treatment
- Hot flashes
- Headache
- Dizziness, lightheadedness
- Mood changes
- Injectable
- Ovarian hyperstimulation syndrome
- Mild (abdominal bloating, discomfort)
- Severe (blood clots, kidney failure, fluid accumulation in chest and abdomen, electrolyte imbalance)
- Headache
- Nausea
- Abdominal discomfort, bloating
- Diarrhea
- Fatigue
- Dizziness, lightheadedness
- Sinus congestion
- Abdominal discomfort
- Nausea
- Diarrhea
- See Surgery, Chapter 21, for side effects, complications

## Massage Therapy Guidelines

### Effects of treatment
- Follow the Privacy Principle; apply massage guidelines for first trimester pregnancy (see Conditions in Brief) if client is actively trying to become pregnant, or if status unknown
- Adapt to cause (see endometriosis, fibroids, polycystic ovary syndrome, Conditions in Brief)

### Medical treatment
- Adjust ambient temperature, drape; avoid hot pads
- Position for comfort, especially prone; consider inclined table or propping; gentle session overall; pressure to tolerance; slow speed and even rhythm; general circulatory intent may be poorly tolerated
- Gentle repositioning, slow rise from table
- No specific massage adjustments; patience, compassion
- Avoid circulatory intent at recent injection site
- Adjust for discomfort in lower abdomen (padding above and below for prone position, or use side-lying)
- No general circulatory intent (see Fluid Balance Principle, Chapter 18)
- Immediate or emergency medical referral (see text for signs and symptoms)

### Effects of treatment
- See above
- Position for comfort, gentle session overall; pressure to tolerance, slow speeds; no uneven rhythms or strong joint movement
- Adjust for discomfort in lower abdomen (padding above and below for prone position, or use side-lying)
- Easy bathroom accesses; gentle session overall; avoid contact or pressure at abdomen that could aggravate
- Gentle session overall
- Reposition gently, slow speed and even rhythm, slow rise from table, gentle transition at end of session
- Limit flat prone position; consider inclined table or change in position
- See above
- Follow the Procedure Principle; see Surgery, Chapter 21

### Additional guidelines
- Gentle sessions overall, before and after procedures
- Sensitivity, rescheduling
- Medical referral if signs of infection
- Gentle session overall, follow DVT risk principles
- Review pregnancy massage texts for high risk pregnancies, consult client’s prenatal health care provider about massage therapy care plan
Sample Decision Tree for Non-Hodgkin Lymphoma
From Chapter 13, Blood Conditions

Non-Hodgkin Lymphoma

Medical Information

- Tumor of lymphatic system, usually forming painless mass in lymph nodes, causing swelling, usually in neck, axilla,inguinal regions; pressure of mass on adjacent tissues causes complications
- General symptoms, usually due to aggressive growth of tumor, include fatigue, fever, unexplained weight loss, night sweats and itching.
- Pain

Complications

- GI disturbances (constipation, bowel blockage, nausea, vomiting, bleeding)
- Spleen involvement, splenomegaly
- Liver involvement, hepatomegaly
- Difficulty breathing
- Disturbance in heart function (pericardial effusion, arrhythmia)
- Obstructed circulation, swelling
- Vena cava syndrome
- Cytopenia
- Bone involvement, pathologic fracture
- Pain

Massage Therapy Guidelines

- Avoid circulatory intent at site of swollen lymph node, limit pressure (1 max) at site
- Gentle session overall
- May need “mop-up” after soaking sweats, re-drape
- Avoid friction, stroking, at sites of itching; use firm holds for distraction, instead
- No pressure or joint movement at site of pain unless cause is medically identified, and physician is clear no injury will occur
- Limit pressure at abdomen to level 1 or 2
- No general circulatory intent; adapt position to congestion (consider sidelying position)
- No general circulatory intent; follow Vital Organ Principle; adapt position to congestion (consider sidelying position)
- Adapt position to comfort; follow Vital Organ Principle
- No general circulatory intent; gentle overall session; follow Vital Organ Principle; see Arrhythmia, Chapter 11
- Avoid general circulatory intent; avoid circulatory intent at site; limit pressure to level 1 max
- Avoid general circulatory intent; avoid circulatory intent at site; limit pressure to level 1 max; if unreported to physician, immediate medical referral
- Ask which blood cells affected, see Chapter 12
- See Bone metastasis, Chapter 20
- Limit pressure (1 max) until cause is diagnosed; see text

Medical treatment

- Watch and wait
- Radiation therapy
- Chemotherapy
- Stem cell transplantation
- Vaccines, biological therapies

Effects of treatment

- None
- Numerous strong side effects possible, see Cancer, Chapter 20

No massage adjustments

See Cancer, Chapter 20