Session 1

Digestive System Part III

Department of Naturopathic Medicine
Session 1

Introduction to Herbal Medicine *Materia Medica 2*

Digestive System Part III

- Materia Medica (from traditional literature & research):
  - *Agrimonia eupatoria*
  - *Frangula purshiana*
  - *Rheum palmatum*
  - *Rumex crispus*
Introduction
Herbal Medicine *Materia Medica 2*

Subject Outline

- Course is 13 sessions:
  - 2 hours of lectures & the equivalent of 1 hour of tutorial.
  - Content reviews digestive, hepato-biliary, urinary, nervous, musculoskeletal, female reproductive, male reproductive and endocrine systems. You will also review the herbs that primarily support these systems based on traditional, empirical and current research.
Herbal Medicine *Materia Medica 2*

Rationale:

- This unit is a continuation on from the study that you undertook in WHMF112 Herbal *Materia Medica 1*.
- You will be exploring the taxonomy, morphology, chemical constituents and therapeutic actions of herbs to generate an understanding of clinical application and herbal medical management.
- This management will include administration and dosage of herbs based on traditional and historical usage as well as relevant research based evidence in relation to physiological systems.
Herbal Medicine *Materia Medica 2*

Class requirements:

- Pre-read (readings and powerpoints) before lectures to create a baseline knowledge to allow for greater immersion in class discussions and tutorial sessions.
- The tutorials and discussions are designed to give you the opportunity to explore your herbal knowledge within the context of ‘real-life cases’ and are the basis of some of the assessment (mid-semester and final exams).
- Complete your Session 1 Worksheet - Herbal Materia Medica after each session.
Assessment: Open Book Mid-Semester Exam

• Open book mid-semester exam will be delivered in session seven (7).

Students can bring printed versions of the following documents (no electronic devices allowed):
• Printed powerpoint notes
• Session 1 Worksheet - Herbal Materia Medica
• Set texts.
Herbal Medicine *Materia Medica 2*

**Assessment: Herbal Monograph**

- Choose 2 (two) herbs that are studied in this subject and generate a ‘current’ *materia medica* for each including clinical uses and side effects and interactions.

- This will require you to explore the herb using Empirical & Traditional texts and current research (15+ references required for each herb).

- The marking rubric provides a clear indication of layout and referencing requirements.
Final Examination

- A 1.5 hour **closed** book examination (during exam fortnight) that will include content covered throughout this subject.
- You will be supplied with a herbal dosage chart listing herbs by their Latin binomial, that are taught in WHMF212.
- The review quizzes on the LMS are great practice for the style of multiple choice questions that you will be given in this exam.
Digestive System Part III

Colon
Digestive System: Colon

• Colon is from the ileum to the anus (arching around the small intestines).
• Main function is transit of faecal material and water absorption.

(Tortora & Derrickson, 2019)
Digestive System: Colon

Herbal Actions:
Astringents (Tannins)
• Short-term action to reduce excretions and inflammation to the mucous membranes.
• Best taken after meals.

Indicated for:
• Upper GIT inflammation
• Diarrhoea following GI inflammation
• Topically for open, discharging wounds; haemorrhoids

Contra-indicated in cases of:
• Constipation
• Iron deficient anaemia
• Malnutrition

(Bone & Mills, 2013)
Digestive System: Colon

Herbal Actions:

Anthraquinone Laxatives

- Modify intestinal motility and generate an accumulation of fluid in the intestinal lumen.
- Appropriate for short term use only.

Indications:

- Atonic constipation
- Can be considered for fluid retention and obesity

Contra-indications:

- Constipation associated with bowel irritability
- Bowel disease
- Diarrhoea
- Long term use

(Bone & Mills, 2013)
Digestive System: Colon

Herbal Actions:

Bulk Laxatives

- Highly water absorbent, insoluble fibre that is a demulcent and increases faecal mass that stimulates baroreceptors.

Indications:

- Constipation
- Inflammatory bowel disease
- Blood sugar dysregulation
- Fluid retention and obesity (traditional)

Contra-indications:

- Iron deficiency anaemia
- Osteoporosis
- Chronic malnutrition

(Bone & Mills, 2013)
Digestive System: Colon

Choleretics & Cholagogues

• Increased production and release of bile (a laxative).
• Increased peristalsis.

Indications:
• Moderate cholecystitis
• Conjugated hyperbilirubinaemia
• ‘Bilious’ conditions
• Intestinal congestion esp. in skin and autoimmune diseases
• Chronic constipation due to sluggish digestion.

Contra-indications:
• Obstructed bile ducts
• Unconjugated hyperbilirubinaemia
• Acute or severe hepatocellular disease
• Intestinal spasm or ileus

(Bone & Mills, 2013)
Agrimonia eupatoria

**Plant family:** Rosaceae  
**Part used:** Aerial parts  
**Constituents:** Flavonoids, tannins (up to 8%), acids, vitamins, triterpenes, volatile oil.  
**Actions:** Astringent, bitter, tonic, mild diuretic  

**Description:**  
- Mild astringent, useful for diarrhoea in children  
- Mucous colitis, diuretic for cystitis  
- Gargle for inflammation of the oral & pharyngeal mucosa  
- Externally for skin inflammation  

(Barnes, Anderson & Phillipson, 2002; Fisher, 2018)
Agrimonia eupatoria

Historical & Traditional Prescribing

- Internally for diarrhoea (tannins), colic, fevers, coughs, bad breath, jaundice, cancers.
- Externally for skin eruptions, bites, warts, sprains, bruises, drawing out splinters, ulcers, “foul” ears (as eardrops); all states of heat and cold.
- Important historically as an astringent in the treatment of external wounds, especially to stop bleeding.

(Barnes et al., 2002; Fisher, 2018)
Agrimonia eupatoria

Cautions / Contraindications / Warnings
• Contains tannins so high or long-term dosing should be avoided.

Herb/Drug Interactions:
• Excessive dosing may alter blood pressure, anti-coagulant & hypoglycaemic medication.

Pregnancy and Lactation Data:
• Excessive use of agrimony should be avoided during pregnancy and lactation.
  (Barnes et al., 2002; Brinker, 2010; Skidmore-Roth, 2010)
# Agrimonia eupatoria

<table>
<thead>
<tr>
<th>Preparation</th>
<th>Adult mL/g</th>
<th>Dosage directions &amp; considerations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dried herb infusion</td>
<td>2-4gm / dose</td>
<td>Take up to three times per day</td>
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<tr>
<td>Fluid Extract 1:2</td>
<td>15-30 mL /week</td>
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</tbody>
</table>

**Taste:** dry 1\(^{\text{st}}\) degree, hot 1\(^{\text{st}}\) degree.  
(Thomsen & Gennat, 2009)
Frangula purshiana

Plant family: Rhamnaceae
Part used: Bark
Constituents: Cascarosides, anthraquinones, resins, tannins
Actions: Laxative, mild purgative (~ 8% anthraglycosides)
Description:
- Laxative & mild purgative useful for softening stools (anal fissures, haemorrhoids).
- In low doses before meal will aid digestion (bitter tonic).

(Bone, 2003; Fisher, 2018; Kahn & Abourashed, 2010)
Frangula purshiana

Historical & Traditional Prescribing

• Constipation, dyspeptic conditions, headache.
• Loss of tone in rectum, haemorrhoids, anal fissure.
• Gastric, duodenal or biliary catarrh with jaundice, chronic diseases of the liver.

(Bone, 2003)

Cascara bark
(Taylor, 2012)
Frangula purshiana

Cautions / Contraindications / Warnings:
• Intestinal obstruction, intestinal inflammation, ulcerative colitis, abdominal pain, children under 12.
• Fresh bark can cause severe vomiting and spasms.

Herb/Drug Interactions:
• May reduce the absorption of drugs (decreased transit time). Separate dose by 2 hours.
• Overdose of this herb has an additive effect with cardiac glycosides (digoxin) & anti-arrhythmic drugs. (quinidine)

• Pregnancy & Lactation: Contraindicated
  (Bone, 2003; Fisher, 2018)
Frangula purshiana

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<tr>
<td>Oral</td>
<td></td>
<td>Once at bedtime</td>
</tr>
<tr>
<td></td>
<td></td>
<td>May take 8-12 hours to be effective.</td>
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<tr>
<td></td>
<td></td>
<td>Addition of a carminative will reduce griping</td>
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<tr>
<td></td>
<td></td>
<td>Long-term use can lead to electrolyte imbalance, weight loss and malabsorption of nutrients.</td>
</tr>
<tr>
<td>Decoction</td>
<td>0.25-1g/ dose</td>
<td></td>
</tr>
<tr>
<td>Liquid Extract</td>
<td>20-55ml/ week</td>
<td></td>
</tr>
<tr>
<td>1:2</td>
<td></td>
<td></td>
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</tbody>
</table>

(Taste: cool, pungent) (Bone, 2003; Fisher, 2018; Thomsen & Gennat, 2009)
**Rheum palmatum**

**Plant family:** Polygonaceae  
**Part used:** Root & rhizome (from 6+ years old plant).  
**Constituents:** Hydroxyanthracenes, anthraquinones (1-5%), tannins, fatty acids, resins, starch, volatile oil  
**Actions:** Laxative, astringent, tonic, stomachic, aperient.  
**Description:** At low dose is an anti-diarrhoeal (tannins) and higher dose is a laxative. (Blumenthal, 2002; Barnes et al., 2002; Fisher, 2018; Kahn & Abourashed, 2010)
Rheum palmatum

Historical & Traditional Prescribing

- It has been used as an appetite stimulant.
- Laxative and safe purgative
- In TCM, rhubarb is used for delirium, and digestive problems.

(LaGow, 2004; Grieve, 1994)
**Rheum palmatum**

**Cautions / Contraindications / Warnings:**
- Avoid in intestinal obstruction, abdominal pain, arthritis, kidney disease, urinary problems & children
- Astringency may exacerbate constipation.

**Herb/Drug Interactions:**
- May reduce the absorption of drugs (decreased transit time). Separate dose by 2 hours.

**Pregnancy and Lactation Data:**
- Should be avoided during pregnancy & lactation.
  
  (Barnes et al., 2002; LaGow, 2004; Fisher, 2018; Skidmore-Roth, 2010)
**Rheum palmatum**

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<tr>
<td>Oral</td>
<td></td>
<td>Takes 6-24hr for action – give at bedtime used for a maximum of 2 weeks. Overdose can cause diarrhoea and griping</td>
</tr>
<tr>
<td>Dried herb decoction</td>
<td>0.2-4g daily</td>
<td></td>
</tr>
<tr>
<td>Tincture BHC (60%)</td>
<td>up to 15 ml</td>
<td>Constipation treatment requires higher dosages</td>
</tr>
<tr>
<td></td>
<td>0.1-0.3g</td>
<td>Astringent or stomachic at low dose (more tannin effect)</td>
</tr>
<tr>
<td>Fluid Extract 1:2</td>
<td>10-30 ml/week</td>
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</tbody>
</table>

**Taste:** Bitter, cold

(Thomsen & Gennat, 2009)
Rumex crispus

**Plant family:** Polygonaceae  
**Part used:** Root  
**Constituents:** Tannins, anthraquinones, oxalic acid  
**Nutritional constituents:** Vitamins A & C. Minerals: Iron, manganese, calcium and phosphorous  
**Actions:** Gentle purgative, cholagogue, laxative, alterative, tonic.  

(Barnes et al., 2002; Bone, 2003; Fisher, 2018)
Rumex crispus

Description:

• Gentle purgative, cholagogue, alterative, tonic that is useful in the management of constipation, chronic skin disorders and liver deficiencies.

• Externally is useful to aid slow healing wounds, and a gargle for upper respiratory tract infections.

(Bone, 2003; Fisher, 2018)
Rumex crispus

Historical & Traditional Prescribing
• Constipation, dyspepsia particularly with fullness, pain and flatulence, painless diarrhoea.
• Seeds used to treat dysentery.
• Chronic skin disorders, chronic lymphatic enlargements, disorders of the spleen, rheumatism, debilitating conditions
• Tonic for weakened constitutions.

(Bone, 2003; Fisher, 2018)
Rumex crispus

Pregnancy and Lactation:
- Should be used with caution during pregnancy. (Bone, 2003)

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<td>2-4 g/ dose</td>
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(Bone, 2003; Fisher, 2018)

Taste: cold and dry (Thomsen & Gennat, 2009)
Recommended Readings


- *Agrimonia eupatoria* p. 370
- *Frangula purshiana* p. 367 (listed as *Rhamnus purshiana*)
- *Rheum palmatum* p. 355
- *Rumex crispus* p. 355
References

frangula.jpg


References


References


Tutorial

Session 1
Tutorial – Case Study

Adelle, 66 yo female,

• Height: 162 cm     Weight: 57 kg

• Adelle presents with an 8 year history of IBS (Irritable Bowel Syndrome).

• She usually has 5-6 bowel motions per day that she describes as “loose”.

• They are usually painless, although she does mention that she is prone to flatulence.

• Occasionally she notices undigested food and mucous in her stool.
Tutorial – Case Study

• Adelle has quite a poor appetite, and as she now lives alone is disinclined to cook meals for herself.
• She will often have a cup of tea and a sandwich at mealtimes.
• Adelle isn’t sure what may have triggered the IBS.
• During the consultation she mentions her ongoing worry for her adult children’s wellbeing. She feels her concern for them has increased since she retired from full time work.
Tutorial – Case Study

Working in small groups:

• Based on this information create short term and long term treatment goals to assist Adelle.

• Treatment goals should identify the symptom/system that you are working on, the herbal action required, and what the herb is doing in the body to effect change.

• Create a list of herbs that fit the actions identified within each goal.
Tutorial – Case Study

• From this list, choose the herbs that best suit the case and generate a herbal prescription, including a 100mL liquid extract formula.
• Consider other forms of herbal interventions, eg teas, creams, separate herbal liquid extract that would be suited to the case.
• Provide clear dosage instructions to the client on how to take the prescription/s.
• This should include quantity of dose, frequency of dose, timing of dose and any other relevant information.
• Groups discuss their findings with the class
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