CRDHA 2017 Annual Competence Conference

Record Keeping in Clinical Dental Hygiene Practice
Presenter: Alexandra D.E. Sheppard

- Registered Dental Hygienist
- Assistant Director Dental Hygiene Clinical Education
- Associate Clinical Professor
- CDAC CDHA Representative
- NDHCB Item Writing / Review Committee member
- International Speaker
  - ADEA in Boston, MA March 2015
  - IFDH in Basel, Switzerland June 2016
- Mum, Daughter, Swimmer, Avid Book Club Reader
To some of my ~ 700 students whom I have taught:

William is almost 20...
Agenda

• Legal Aspects
• Health history
• Oral Cancer Screening
• Periodontal Records
• Dental Hygiene Diagnosis
• Caries Risk Assessment
• Periodontal Risk Assessment
• Prognosis

Take home messages throughout
Incomplete Chart entries

• 2 U scale

• Billed in a 60 minute appointment:
  • 4 BW 02144 5 minutes
  • 3 units scale 11113 38 to 45 minutes
  • 1 unit polishing 11101 8 minutes
  • Fluoride varnish 12101 4 minutes
  • Recall examination 01201 4 minutes

  *Was the medical history reviewed? Was the oral cancer screening completed?*

• Freezing quad 3, scaling

• No entry
Concerns

• Inability to determine who provided treatment
  • No signature
  • No printed name
• Treatment billed is greater than the time scheduled
• No documentation of treatment only billing codes
• No evidence of reviewing the health history
• No documentation of periodontal probing
• No evidence of completing an extra / intra oral examination
• Patient has no idea they have periodontitis or gingivitis
As College and University students:

- All of you were taught:
  - To take a complete health history
  - Perform an oral cancer extra and intra oral screening
  - Full mouth probe every patient at every appointment
  - Provide oral hygiene education and instruction
  - Complete comprehensive care plans
What happens after graduation?

• Time Constraints
• Questionable value of procedures
• Lack of understanding of the dental hygienist’s scope of practice
• Procedures become out of habit

Communication with the employer, dentist and office manager
Legal Aspects

Check out the links to all resources on www.crdha.ca
Records Expectations

- Entries documented promptly after treatment
  - Concise statements
  - Signed by the clinician if paper charts
  - Full name entered – initials are not sufficient

Consider including your CRDHA #
CRDHA Practice Standards

- Process of Care Model
  - Guides Dental Hygiene Practice
- Professional Responsibility
  - RDH is responsible for their DH practice and conduct
- As opposed to being task oriented
  - Stresses critical thinking, reflection and problem solving
CRDHA Practice Standards

• Documentation and Record Keeping
  • Document all aspects of the Dental Hygiene Process of Care in detail
    • A
    • D
    • P
    • I
    • E
  • Common language, symbols, abbreviations
  • Secure management system
  • Keep records for 10 years after last treatment
    • Minors until age 20 or for at least 10 years after the last treatment
Health Professions Act

• Schedule 5: Profession of Dental Hygienists

“Assess, diagnose and treat oral health conditions through the provision of therapeutic, educational and preventative dental hygiene procedures and strategies to promote wellness”
Principle #2 Veracity

• “Veracity is the ethical principle of honesty. Dental Hygienists must be truthful and forthright in all professional matters.”

• “2.1 provide clients with full and accurate explanation and professional opinion concerning their oral health in a manner consistent with the client’s ability to understand the information being given

• 2.3 represent the nature and costs of professional services fairly and accurately”

CRDHA Code of Ethics\(^4\)
CRDHA Code of Ethics

Principle #3: Autonomy and Informed Choice

• Disclosure
• Willingness
• Capacity

• Discuss:
  • Material effects and costs, significant risks and side effects
  • Alternative treatments and the consequences of not having the treatment.
  • Ability to answer questions

Consider the additional legal protection of a written consent form
Principle #4: Privacy and Confidentiality

Dental Hygienists...

• “4.7 will release information in dental records or reports to the client or to whomever the client directs, including other professionals and oral health care plan carriers:

  • 4.7.1 This obligation exists regardless of the state of the client’s account”
CRDHA Code of Ethics

Principle #5: Accountability

Dental Hygienists...

• “5.1 Accept responsibility for knowing and acting consistently with the principles, standards, laws and regulations under which they are accountable.”
CRDHA Code of Ethics

Principle #6: Professionalism

Dental Hygienists...

• “6.4 have a duty to apply the professional knowledge, skills, attitudes and judgements necessary to perform competently in all client assessments and services, in accordance with currently accepted professional standards.

• 6.10 consult with colleagues, other health professionals and experts as necessary.”
Chief Concern

• Primary reason the client is at the appointment
• Recorded in the client’s own words
• Address early in the care plan
  • Satisfaction
  • Trust
  • Cooperation

What brings you here today?
What are you hoping from today’s treatment?
Do you have any pain, sensitivity, discomfort or worries?
Health History
Health History

• Update at the beginning of the appointment
• Include the date of the last DH appointment
• Clarify and validate responses
• Assess the significance
• Determine implications for treatment
• Referral to a dentist, physician or other health care professional

Are you taking any medications, including OTC?
Do you have any allergies?
Any illnesses, surgeries, medical conditions?
Do you use tobacco products?
Do you drink alcohol?
How often do you brush, floss, interdental brushes
Do you use a mouth rinse?
Vital Signs

• Blood Pressure
  • Defer elective dental treatment if \( \geq 180 / 110 \)

• Blood Pressure
  • \(< 180/110\)
    • Any treatment may be provided if no target organ involvement
  • Non-selective beta blocker
    • Propranolol, Inderal, Nadolol
    • Use \( \leq 2 \) carpules of anaesthetic with 1:100,000 epinephrine
    • Avoid long term use of NSAIDS

• Heart Rate, Respiration, Temperature and pulse oximeter
Oral Cancer Screening

Are you doing this at EVERY appointment?
Figure 12.1
Nield-Gehrig JS, Wilman DE. Figure 12.4, 12.5. 12.19
Extraoral Assessment Head & Neck

The dental hygienist examines and palpates the following areas:

1. Palpate jaw joint for clicking, tenderness or restricted movement when the mouth is opened and closed.
2. Palpate the parotid salivary gland and the masseter muscle in the cheeks for swelling or tenderness.
3. Palpate submental lymph nodes under the chin area.
4. Palpate submandibular lymph nodes under the angle of the jaw.
5. Palpate cervical lymph nodes along both sides of the neck.
6. Palpate supravacular lymph nodes above both sides of the collar bone.
7. Palpate occipital lymph nodes at the base of the skull.
8. Palpate postauricular lymph nodes behind the ear.
9. Palpate preauricular lymph nodes in front of the ear.

See www.cdha.ca for resources on Oral Cancer Screening.
**Intraoral Assessment Lips & Mouth**

The dental hygienist pays close attention to changes in colour, size, and texture when examining the following areas:

1. **Lips**: Examine with finger and thumb.
2. **Upper and lower lip**: Examine the gingiva or gums and inside of the lip for any changes.
3. **Inside of the cheeks**: Look for red or white patches or swelling, hardness or tenderness.
4. **Gingiva or gums**: Look for red or white patches or swelling, hardness or tenderness.
5. **When the tongue is straight out, palpate and visually examine the upper surface, looking as far back as can be seen for any swelling, texture or colour changes.
6. **Holding the tongue to the side, examine each side for any red or white patches, and palpate for tenderness, swelling or hard spots.
7. **While the tongue is touching the root of the mouth, visually examine and palpate the surface for any swelling, red or white patches or hard spots.
8. **While the tongue is elevated, visually examine and palpate the area binocularly for any swelling, hard spots or changes in colour or texture.
9. **Have the client take a deep breath in through the mouth and say “ah.” Depress the tongue and examine the throat and palate for signs of swelling, texture or colour change.**
Periodontal Records
PSR vs FMP

- Baseline FMP
- PSR Codes of 0, 1, 2, 3, 4
- PSR Code * refers to:
  - Recession ≥ 3.5mm
  - Mobility
  - Furcation involvement
Periodontal Probing Records

- Pocket depth
- Recession
- Measurement from the CEJ to the Free Gingival Margin
- Mobility
- Furcations
- Bleeding
- Exudate
- Mucogingival involvement
Furcations\textsuperscript{9,10}

- Grade I
- Penetration less than 1 mm
- Felt in the concavity of the root trunk
Furcations\textsuperscript{9,10}

- Grade II
- Probe enters the furcation
- \(< 1/3 \text{ of the tooth}\)
- \(> 1 \text{ mm}\)
Furcations

• Grade III
  • In mandibular molars
    • Completely between the mesial and distal roots
  • In maxillary molars
    • Touching the palatal root

• Grade IV
  • Similar to a grade III but furcation is clinically visible
Mobility $^9$

[Image of dental teeth with arrows indicating mobility]

[Diagram of dental structures with labels: probe handle, mirror handle, Fa (mesial surface), Li (blunt end of mirror handle)]
Mobility Review

ALL teeth move somewhat due to the periodontal ligament fibers

• Class 1
  • Slight facial-lingual horizontal mobility up to 1 mm

• Class 2
  • Moderate facial-lingual horizontal mobility >1 mm but < 2 mm

• Class 3
  • Severe mobility horizontal or vertically > 2mm
Periodontal Risk Assessment

Likelihood the person will get the disease
Potential risk factors for Periodontitis

• Diabetes Type I or Type II

  • What is the patient’s HbA1c?
  • Glycated hemoglobin or the average plasma glucose over the past three months
  • Good glycemic control <7%
  • Poorly controlled hyperglycemia >8%  

_Blood Glucose 4 to 8 mmol / L is great or 5 to 9 mmol / L is fine_
Take home messages

- Complete an oral cancer screening at every appointment
- Document atypical or abnormal findings
- Consider taking a photograph of the findings
- Follow up within 14 days with atypical or abnormal findings
- Refer to the oral pathologist or physician

Should we be including a question on oral sex in our health history?

HPV 16 is more often the cause of oral cancer in a non tobacco user under the age of 40\textsuperscript{12}
Risk Factors for Periodontitis

• Tobacco Use
  • Cigarettes, Cigars, Hookah, Chewing Tobacco, Marijuana
  • Impacts immune and inflammatory system
  • Decreases PMN phagocytic capacity
  • Decreases vascularity of gingival tissues
  • Affects T and B lymphocyte response to periodontal pathogens

• Genetics: Family history of periodontitis
Other Risk Factors for Periodontitis

• Age
  • The older the patient the more at risk
• Stress
  • Compromises the Host Immune Response
• Medications
  • Look up effects on dental treatment
• Clenching grinding
• Poor nutrition and obesity
• Other systemic disease
Healthy Periodontium $^{14}$
Periodontitis: the height of the alveolar bone is > 2 mm to the CEJ \(^{14}\)
Normal Alveolar Bone Height: 1.5 to 2 mm apical to the CEJ $^{14}$
Vertical contour to crestal bone due to tilting/rotations of teeth $^{14}$
Clinical Examination

• Clinical Attachment Level or Clinical Attachment Loss (CAL)
• Periodontal Probing Depth and Distance between the CEJ and the height of the gingival margin.
• Periodontal probing depth is 6 mm
• CEJ = height of the gingival margin
• Junctional epithelium is at 6 mm\textsuperscript{14}
Gingival Margin is coronal to the CEJ

- Periodontal probing depth is 9 mm.

- 3 mm of the gingival margin is inflammation
  - The distance from the CEJ to the height of the gingival margin. 14
Gingival Margin is coronal to the CEJ \(^{14}\)

- Periodontal probing depth is 4 mm.
- Recession is 2 mm
- 6 mm Clinical Attachment Loss

**Periodontal Probing depth alone cannot be used to determine the periodontal status for the patient.**
Caries Risk Assessment
Caries Risk Assessment ¹⁴

- Document low, moderate, high or extreme caries risk.

### Caries Risk Assessment Form - Children Age 6 and Over/Adults

**Patient Name:**

**Assessment Date:** [Please circle] baseline or recall

<table>
<thead>
<tr>
<th>Disease Indicators (Any one &quot;YES&quot; signifies likely &quot;High Risk&quot; and to do a bacteria test*)</th>
<th>YES = CIRCLE</th>
<th>YES = CIRCLE</th>
<th>YES = CIRCLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Visible cavities or radiographic penetration of the dentin</td>
<td>YES</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Radiographic approximal enamel lesions (not in dentin)</td>
<td>YES</td>
<td></td>
<td></td>
</tr>
<tr>
<td>White spots on smooth surfaces</td>
<td>YES</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Restorations last 3 years</td>
<td>YES</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Risk Factors (Biological or predisposing factors)**

- MS and LB both medium or high (by culture***)
- Visible heavy plaque on teeth
- Frequent snack (>3x daily between meals)
- Deep pits and fissures
- Recreational drug use
- Inadequate saliva flow (by observation or measurement (**"If measured, note the flow rate below")
- Saliva reducing factors (medications/radiation/systemic)
- Exposed roots
- Orthodontic appliances

**Protective Factors**

- Lives/work/school fluoridated community
- Fluoride toothpaste at least once daily
- Fluoride toothpaste at least 2x daily
- Fluoride mouthrinse (0.05% NaF) daily
- 5,000 ppm F fluoride toothpaste daily
- Fluoride varnish in last 6 months
- Office F topical in last 6 months
- Chlorhexidine prescribed/used one week each of last 6 months
- Xylitol gum/lozenges 4x daily last 6 months
- Calcium and phosphate paste during last 6 months
- Adequate saliva flow (>1 mL/min stimulated)

**Bacteria/Saliva Test Results:** MS: LB: Flow Rate: mL/min. Date:

**Visualize Caries Balance:**

(Use circled indicators/factors above)

(EXTREME RISK = HIGH RISK + SEVERE SALIVARY GLAND HYPOFUNCTION)

Caries Risk Assessment (Circle): EXTREME HIGH MODERATE LOW

**Signature:**

**Date:**
<table>
<thead>
<tr>
<th>Intervention</th>
<th>Low</th>
<th>Moderate</th>
<th>High</th>
<th>Extreme</th>
</tr>
</thead>
<tbody>
<tr>
<td>OTC toothpaste with fluoride</td>
<td>Twice daily</td>
<td>Twice daily</td>
<td>Not as beneficial</td>
<td>Not as beneficial</td>
</tr>
<tr>
<td>1.1% Fluoride toothpaste (Prevident, Clinpro, Fluoridex)</td>
<td>Not required</td>
<td>Not required</td>
<td>Twice a day</td>
<td>Twice</td>
</tr>
<tr>
<td>5% Sodium Fluoride Varnish</td>
<td>Optional if sensitivity / root exposure</td>
<td>Applied at 4 to 6 month DH CCA</td>
<td>Applied at 3 to 4 month DH CCA</td>
<td>Applied at 3 month DH CCA</td>
</tr>
<tr>
<td>Sodium Bicarbonate Rinsing</td>
<td>Not required</td>
<td>Not required</td>
<td>Not required</td>
<td>After all snacks, meals</td>
</tr>
<tr>
<td>ACP (MI Paste ™)</td>
<td>Optional</td>
<td>Optional</td>
<td>Optional</td>
<td>Required twice daily</td>
</tr>
<tr>
<td>Intervention</td>
<td>Low</td>
<td>Moderate</td>
<td>High</td>
<td>Extreme</td>
</tr>
<tr>
<td>------------------------------------------</td>
<td>------------------------</td>
<td>---------------------------</td>
<td>-------------------------------------------</td>
<td>-----------------------------------------------</td>
</tr>
<tr>
<td>Chlorhexidine Gluconate 0.12%</td>
<td>Not required</td>
<td>Not required</td>
<td>Twice daily for one week per month</td>
<td>Twice daily for one week per month</td>
</tr>
<tr>
<td>Xylitol gum or mints</td>
<td>Not required</td>
<td>6 to 10 g per day</td>
<td>6 to 10 g per day</td>
<td>6 to 10 g per day</td>
</tr>
<tr>
<td>Fluoride Rinses</td>
<td>Not required</td>
<td>0.05% Sodium Fluoride Rinse Daily</td>
<td>0.2% NaF daily Then 0.05% NaF twice daily</td>
<td>0.05% NaF rinse after snacks and meals</td>
</tr>
<tr>
<td>Biotène Products Sprays, gels, rinses</td>
<td>As required</td>
<td>As required</td>
<td>As required</td>
<td>As required</td>
</tr>
<tr>
<td>(Saliva substitutes)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Document the caries risk for the patient and include the appropriate interventions based upon risk
Dental Hygiene Diagnosis
1999 AAP Classification of Gingival Diseases

- Gingival Diseases
  - Plaque-induced gingival diseases
  - Non-plaque induced gingival diseases

- On a periodontium with no attachment loss
- On a periodontium with a history of attachment loss that is NOT progressing
1999 AAP Classification of Periodontitis and other periodontal diseases

• Slight 1 to 2 mm CAL
• Moderate 3 to 4 mm CAL
• Severe ≥ 5 mm CAL

Review to happen in 2017
Take Home Messages

• Localized papillary gingivitis along the facial of the 11 to 13 related to current toothbrushing technique evidenced by the presence of BOP and biofilm.

• Generalized chronic moderate periodontitis related to the complications of type II Diabetes and challenges maintaining a stable HbA1c evidenced by BOP, ongoing bone loss visible on radiographs.

• Localized severe periodontitis to the 26 lingual related to the habit of smoking ½ to 1 pack a day of cigarettes evidenced by loss of clinical attachment levels.
Prognosis

Prediction of the outcome of a disease...
Determination of Prognosis

• Client age
• Severity of the disease
• Oral hygiene management
• Smoking
• Systemic diseases
  • Diabetes
• Genetics
• Stress
• Biofilm
• Subgingival Restorations

Other consideration:

Anatomy of the roots
Presence of caries
Endodontically treated teeth
Continuing Care Appointments

- Merin Classification

- Class A  
  Well maintained in private practice
  6 months to 1 year
  Good oral hygiene
  Minimal calculus
  No occlusal problems
  No periodontal pockets
  No teeth with < 50% alveolar bone
Continuing Care Appointments

- Class B Merin Classification
- 3 to 4 months per year
- Inconsistent or poor oral hygiene
- Heavy calculus
- Systemic disease that predisposes to periodontitis
- Occlusal problems
- Some periodontal pockets
- Some teeth with < 50% alveolar bone

- Recurrent caries
- Smoking
- Genetics
- Orthodontics
- >20% of BOP sites
Continuing Care Appointments

- Class C Merin Classification
- 1 to 3 months per year
- Inconsistent or poor oral hygiene
- Heavy calculus
- Systemic disease that predisposes to periodontitis
- Occlusal problems
- Many periodontal pockets
- Many teeth with < 50% alveolar bone
- Recurrent caries
- Smoking
- Genetics
- Orthodontics
- >20% of BOP sites
- Complicated prosthesis
- Indicated for periodontal surgery or too advanced for periodontal surgery
Documentation
Client Records

- Personal Information Protection Act
- Health History
- Extraoral, intraoral, dental and periodontal charting findings
- Radiographs and findings
- Informed consent
- Informed refusals
  - Consideration to have a written informed refusal
PARTS

• **Problem, Assessments, Recommendations/Prescriptions, Treatment, Strategy**

• **P** Chief concern, med hx update
• **A** EO/IO, periodontal probing, gingival assessments; biofilm indexes
• **R** OHI recommended, prescriptions prescribed
• **T** Topical anaesthetic, applied; type, amount of LA and name of injection; units of scaling/root planing; type of fluoride and %
• **S** Continuing Care Appointment Interval

Sign it with your name, RDH and CRDHA #
Documentation

• SOAP

• **Subjective, Objective, Assessment Plan**

• **S**  Chief Concern, health history, last DH appointment

• **O**  Vital signs, medications

• **A**  EO/IO exam, biofilm index, FMP/PSR, radiographs

• **P**  treatment to be rendered
Consistency of Documentation

• Sterilization
  • Date and Load Number

• Chief Concern

• Med/Dent or Health History update

• EO/IO findings

• Periodontal Assessment

• Caries Risk

• Dental Hygiene Diagnosis

• OHI

• Recommendations

• Treatment provided

• Next steps
Excellent article to review on expectations of documentation
# Common Abbreviations

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AE</td>
<td>Acid Etch</td>
<td></td>
</tr>
<tr>
<td>BOP</td>
<td>Bleeding on Probing</td>
<td></td>
</tr>
<tr>
<td>CAL</td>
<td>Clinical Attachment Level</td>
<td></td>
</tr>
<tr>
<td>CHX</td>
<td>Chlorhexidine</td>
<td></td>
</tr>
<tr>
<td>Desen</td>
<td>Desensitize</td>
<td></td>
</tr>
<tr>
<td>Ext</td>
<td>Extract</td>
<td></td>
</tr>
<tr>
<td>FGC</td>
<td>Full Gold Crown</td>
<td></td>
</tr>
<tr>
<td>Fl</td>
<td>Fluoride Treatment</td>
<td></td>
</tr>
<tr>
<td>FMP</td>
<td>Full Mouth Probe</td>
<td></td>
</tr>
<tr>
<td>GP</td>
<td>Greater Palatine</td>
<td></td>
</tr>
<tr>
<td>HHx</td>
<td>Health History</td>
<td></td>
</tr>
<tr>
<td>Hx</td>
<td>History</td>
<td></td>
</tr>
<tr>
<td>I</td>
<td>Infiltration</td>
<td></td>
</tr>
<tr>
<td>IA</td>
<td>Inferior Alveolar</td>
<td></td>
</tr>
<tr>
<td>IO</td>
<td>Infraorbital</td>
<td></td>
</tr>
<tr>
<td>LA</td>
<td>Local Anaesthetic</td>
<td></td>
</tr>
<tr>
<td>LB</td>
<td>Long Buccal</td>
<td></td>
</tr>
<tr>
<td>MD</td>
<td>Medical Doctor</td>
<td></td>
</tr>
<tr>
<td>MGI</td>
<td>MucoGingival Involvement</td>
<td></td>
</tr>
<tr>
<td>MGJ</td>
<td>MucoGingival Junction</td>
<td></td>
</tr>
<tr>
<td>Obs</td>
<td>Observe</td>
<td></td>
</tr>
<tr>
<td>OHI</td>
<td>Oral Hygiene Instructions</td>
<td></td>
</tr>
<tr>
<td>PFM</td>
<td>Porcelain Fused to Metal</td>
<td></td>
</tr>
<tr>
<td>PFS</td>
<td>Pit &amp; Fissure Sealant</td>
<td></td>
</tr>
<tr>
<td>Post-op</td>
<td>Post-Operative Instructions</td>
<td></td>
</tr>
<tr>
<td>PRN</td>
<td>As needed (from Latin “pro re nata”)</td>
<td></td>
</tr>
<tr>
<td>PSA</td>
<td>Posterior Superior Alveolar</td>
<td></td>
</tr>
<tr>
<td>Pt</td>
<td>Patient or Client</td>
<td></td>
</tr>
<tr>
<td>RC</td>
<td>Recall</td>
<td></td>
</tr>
<tr>
<td>RCT</td>
<td>Root Canal Therapy</td>
<td></td>
</tr>
<tr>
<td>RP</td>
<td>Root Planing</td>
<td></td>
</tr>
<tr>
<td>Rx</td>
<td>Prescription/Prescribed</td>
<td></td>
</tr>
<tr>
<td>Sc</td>
<td>Scaling</td>
<td></td>
</tr>
<tr>
<td>SI</td>
<td>Supraperiosteal Infiltration</td>
<td></td>
</tr>
<tr>
<td>SSC</td>
<td>Stainless Steel Crown</td>
<td></td>
</tr>
<tr>
<td>Tx</td>
<td>Treatment</td>
<td></td>
</tr>
</tbody>
</table>
Take Home Message

• Document treatment, education, services provided
• If it’s not documented it’s as though you did not provide it
• Consider teaching your offices about documentation requirements
• Consider recording the time spent on instrumentation
  • 9:10 to 9:45 2 units 11112 and ½ unit 11117
• Ensure health history is reviewed
• Provide an oral cancer screening at every appointment
• PROBE, every tooth and record it
• Provide a diagnosis
• Provide educational interventions
University of Alberta School of Dentistry 100 Years: 1917 - 2017
References


References


Contact Information

Alexandra D.E. Sheppard
5-577 Edmonton Clinic Health Academy
11405 – 87th Avenue
University of Alberta North Campus
Edmonton, AB, T6G 1C9

780-492-4453
alexandra.sheppard@ualberta.ca