Presents:
Advanced Hand Instrumentation

Disclosure
The author of this course, Danielle A. Victoriano, RDH, BS, MHS, is the Product Manager for Scaler Accessories at Hu-Friedy Manufacturing Co., Inc.

- **Module Description:** This module will provide an overview of instrument designs that are critical to the successful execution of advanced instrumentation for patient care. This module will review innovative options for assessment procedures, as well as initial and definitive debridement procedures.

**Objectives**
Upon completion of this module the participant should be able to understand:
- The concept & indication for advanced instrumentation.
- The benefits and indications for use of the reviewed instruments.
- Opportunities for use for hoe, file, and chisel scalers.
- Compare the features and indications for the Nevi® series posterior scalers.
- Compare the features and indications for furcation and debridement curettes.
- The benefits and indications for use of Micro Mini Five Gracey curettes.
- The benefits and indications for use of Pink Ribbon CUREtte.
- The benefits and indications for use of DiamondTec® scalers.
- Become proficient in the various instrumentation techniques associated with the reviewed instruments.
- Implement knowledge of advanced instrumentation choices related to the delivery of patient care.

**What is advanced instrumentation?**
It is the procedures and use of armamentaria associated with such to accomplish finite scaling and root detoxification

**After Five® Explorer**
- Modeled after the Gracey 11/12 curette, this explorer features precise contra-angle bends and extended shank length for deep access to pockets, root contours, and interproximal areas for optimal deposit detection
  - **Benefits**
    - Created to allow exploration of the entire dentition with one instrument
    - Extended shank design (3mm longer than standard shank length) allows access to deep pocket depths and adaptation to all surfaces
    - Duraspond™ alloy provides exceptional tactile sensitivity, flexion, and durability
  - **Indications for use**
    - Subgingival deposit detection in all areas, especially deep periodontal pockets
    - May be used during all assessment and treatment procedure

**Novatech™ Probes**
- Periodontal probe featuring right-angled Shank bends to permit access to distal surfaces of posterior teeth
  - **Benefits**
    - Ideal for accessing posterior distal areas while maintaining proper angulation
    - Permits assessment without overextending the patient’s temporomandibular joint
    - Facilitates periodontal assessment of third molars
  - **Indications for use**
    - Periodontal assessment of all areas, especially posterior distal surfaces
**Hoe Scalers**
- Instruments that features a straight, thick cutting edge with a beveled tip angled at 45°
  - Benefits
    - Ideal for areas of easy access and boggy tissue to fracture spicules and ledges of supragingival deposits
    - Varying degrees of shank length and bends provide area specific access
      - More angled, longer shanks—ideal for posterior areas
      - Less angled, shorter shanks—ideal for anterior areas
  - Indications for use
    - For removing heavy supragingival calculus
    - Pull strokes are used to activate stroke

**Chisel Scalers**
- This instrument is available with a straight or curved shank, and its blade is continuous with the shank.
- This instrument features very sharp corners at each end of the blade.
- Its narrow cutting edge is formed with the tip beveled at a 45° angle.
  - Benefits
    - Excellent at fracturing large ledges of supragingival calculus from mandibular anterior teeth.
  - Indications for use
    - Push strokes are used during activation with a modified pen grasp.
    - Used to fracture and remove heavy interproximal, facial and lingual calculus from mandibular anterior teeth.

**File Scalers**
- Used subgingivally and supragingivally to crush and fracture heavy deposits
- This instrument features a series of miniature hoe blades on a foundation base, attached to a shank of varying angulations and lengths
  - The base shape is variable also
- Each miniature hoe blade is angled at 90 -105 degrees from the shank
  - Benefits
    - Rigid shanks for easier deposit removal
    - Area-specific designs for mesial, distal, facial, and lingual surfaces
    - Deposits are approached from a facial or lingual orientation
  - Indications for use
    - Pull strokes are used with a modified pen grasp during activation
    - May be used subgingivally or supragingivally to crush deposits

**DiamondTec™ file scalers**
- 365 degree diamond-coated file scalers for accessing root concavities, developmental grooves, furcations, and line angles
  - Benefits
    - Full coverage diamond coating
    - Curved shank bends to facilitate furcation and interproximal access
    - Ergonomic handle dimensions for increased comfort and control
  - Indications for use
    - Used with horizontal, vertical and oblique stroke patterns in a push/pull motion
    - All surfaces may be utilized, depending on area of access and clinician’s preference
    - Intraoral and extraoral fulcrums may be utilized

**Nevi® Series of Posterior Scalers**
- With slender, tapered blades and precise contra-angle bends, partnered with revolutionary EverEdge® Technology, the Nevi series of posterior sickle scalers provides solutions for all of the toughest scaling needs.

**SCNEVI39 (Nevi 3) Benefits**
- Ultra slender dual cutting blades provide:
  - Effective placement in tight, narrow contacts and interproximal areas
  - Precise access for effective removal of light to moderate deposits
  - EverEdge® Technology makes blades stay sharper longer
- Unique contra-angle bends provide:
  - Superior access, reach and adaptation to posterior areas
SCNEVI49 (Nevi 4) Benefits
- Tapered dual cutting blades provide:
  - Precise access for effective deposit removal
  - Makes quick work of the toughest scaling tasks
  - EverEdge® Technology makes blades stay sharper longer
- Increased shank rigidity provides:
  - Powerfully effective strokes with less effort and fatigue for the clinician
  - Especially effective for removal of burnished, heavy, and tenacious deposits

Nevi® Series of Posterior Scalers
- Indications for use
  - Supragingival scaling in posterior applications
  - For light to moderate deposits: Nevi 3, SCNEVI39
  - For moderate to heavy and burnished deposits: Nevi 4, SCNEVI49

Seeing is believing!
Nevi 3 and Nevi 4 adapting to posterior sextants
(View video on Friends of Hu-Friedy’s Multimedia Section)

Furcation & Debridement Curettes
- Curettes designed to detoxify and smooth root and furcation anatomy
  - Abrasive/ textured surfaces: Furcation
  - 365 degree cutting edges on a discoid base: Debridement
- Benefits
  - Provides precise access to furcations and concavities for root surface detoxification
- Indications for use
  - Pull strokes are used during activation
  - Internal or external fulcrums may be utilized
  - Stroke sequence is very similar to file scalers

SYME9, Pink Ribbon CUREtte
- An area-specific curette with a single cutting edge that is 70° in relation to the terminal shank
- This instrument features a contra-angle shank design that provides optimal tooth-to-blade angulation
- Benefits
  - Ideal for the needs of maintenance patients
  - A donation is made to the Breast Cancer Network of Strength™ (formerly the Y-ME National Breast Cancer Organization) with the sale of each curette
- Indications for use
  - Ideal for subgingival and supragingival applications for anterior and premolar areas, as well as pedodontic dentition
  - Pull stroke is used during activation with intraoral and extraoral fulcrums

Micro Mini Five Gracey Curettes
- Benefits
  - Ultra slender blades
  - Increased shank strength for precise deposit removal
  - Excellent applications for instrumentation of root line angles, narrow anterior pockets, furcations, and root concavities (depressions).
  - Perfect for the most challenging periodontal pockets
  - Similar to traditional Mini Five Gracey curettes
    - An extended shank length
    - Reduced blade length
    - Precise bends
- Indications for use
  - For fine deposit removal following first stage root and tooth debridement
  - Pull stroke used during activation
  - Intraoral and extraoral fulcrums may be utilized
Video clip of Micro Mini Five Graceys in action in various applications throughout the mouth
(View video on Friends of Hu-Friedy’s Multimedia Section)

Video Clip of Furcation Instrumentation on a typodont accessing molar anatomy!
(View video on Friends of Hu-Friedy’s Multimedia Section)

Video Clip of Furcation instrumentation on an extracted molar!
(View video on Friends of Hu-Friedy’s Multimedia Section)

- Note how the SMS11/129 is utilized to instrument the mesial aspect of the distal root
- Note how the SMS13/14 is utilized to access the distal aspect of mesial root

- There are many options available to enable the clinician to perform intermediate to advanced instrumentation for profound clinical results and outcomes.

- In each scenario, the clinician should evaluate the treatment needs to choose and implement the appropriate instrument to best achieve the desired outcomes.

**About the author**

Danielle Victoriano is a Registered Dental Hygienist, with over 13 years of clinical experience and 8 years of dental hygiene education. Danielle holds Associate and Bachelor of Science degrees in Dental Hygiene from LSUHSC School of Dentistry in New Orleans, as well as a Master of Health Sciences in Dental Hygiene, with an Education focus, from LSUHSC School for Allied Health Professions. Her area of thesis study was distance education and dental hygiene programs.

Danielle served as an Assistant Professor of Clinical Dental Hygiene and 1st Year Clinical Coordinator at LSUHSC School of Dentistry in New Orleans, LA, and the 2nd Year Clinical Coordinator at Kennedy-King College/UIC College of Dentistry Dental Hygiene Program in Chicago, IL. Areas of instruction during her tenure included instrumentation, sharpening, dental materials, clinical instruction, and professional development.

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**CE Accreditation**

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