Observation checklist

1. Overall degree of radiopacity/radiolucency
   a. Radiolucent?
   b. Radiopaque?
   c. Mixture of lucent/opaque?

2. Anatomical position of area of interest
   a. Mandible?
   b. Maxilla?
   c. Both jaws?
   d. In dental tissue?
   e. In osseous tissue (cortical or cancellous or both)?
   f. In soft tissue?

3. Estimated site of origin of the area of interest
   a. Where is the centre of it? MAXILLARY SINUS / NASAL CAVITY
   b. Is it from outside going into bone or inside bone growing out?
   c. Any associated soft tissue mass?

4. BORDER/MARGIN/PERIPHERY of area of interest
   a. Demarcation
      i. Well demarcated?
      ii. Moderately well demarcated?
      iii. Poorly demarcated?
      iv. Not demarcated?
   b. Cortication
      i. Well-corticated (thick or thin peripheral cortex)?
      ii. Moderately well corticated?
      iii. Poorly corticated?
      iv. Not corticated?
   c. Encapsulation
      i. Encapsulated?
      ii. Not-encapsulated?
   d. Border sub-types
      i. Infiltrative?
      ii. Smooth edged?
      iii. Etched smooth hydraulic border?
      iv. Crenulated undulating intact border?
      v. Ragged, moth-eaten border?
      vi. Diffuse border that melds with normal bone?
      vii. Displaced border that maintains its dimensional stability?
      viii. Punched-out border?
      ix. Sharp sclerotic border?
5. **NATURE OF THE INTERNAL STRUCTURE** – what’s inside the area of interest
   a. Single piece of internal structure?
   b. Multiple separate internal structures?
   c. Rarefying osteitis?
   d. Blurring of trabeculae inside the area of interest?
   e. Diminished density of trabeculae?
   f. Diminished number of trabeculae?

**IF SOMETHING IS RADIOPAQUE….**
   Tooth?
   Bone?
   Something else (calcifications or foreign body) – soft tissue?

**Tooth?**
   Is enamel present?
   Is dentin present?
   Are dental soft tissues present admixed with either of the above?
   Masses or globules the density of cementum?
   Hellish and confusing admixtures of the above?

**Bone?**
   Sequestrum?
   Sclerosing osteitis?
   Granular bone?
   Increased size of individual trabeculae?
   Long spindly trabeculae?
   Septations?
   Normal residual/leftover bone?
   Appearance of “tubular bone?”
   Linear striations of bone?

**Something else? – **calcification**
   Metastatic calcification?
   Dystrophic calcification?
   Calcification of a lymph node?
   Tonsillar calcifications?
   Salivary gland or duct calcifications?
   Calcifications in muscle planes?

**Something else? – foreign bodies**
   Metallic?
   Non-metallic?
6. **EFFECTS ON ADJACENT STRUCTURES**

   a. **Bone**
      i. Alterations in cortical definition or density?
      ii. Alterations in trabecular bone?
      iii. Changes in bone density?
      iv. Changes in bone architecture?
      v. Thinning of normal anatomic boundaries?
      vi. True “hair-on-end” trabecular bone pattern?
      vii. False hair-on-end trabecular bone pattern?
      viii. Codman’s triangle?
      ix. Expansion of bone with cortical breaching?
      x. Laminar periosteal new bone?
      xi. Displaced and destroyed periosteal new bone?

   b. **Teeth**
      i. Hypercementosis?
      ii. Root resorption?
         1. Internal
         2. External
         3. With enostosis
      iii. Bodily movement of teeth?
      iv. Alterations or prevention of eruption?
      v. Alterations in tooth formation (hypoplasia/aplasia/dilacerations)

   c. **Effects on specific anatomical structures**
      i. Mandibular canal?
      ii. Mental foramen?
      iii. Inferior/posterior/superior border of mandibular cortex?
      iv. Mandibular angle?
      v. Condylar head- shape, orientation, location?
      vi. Maxillary sinus walls, floor? Maxillary sinus walls, floor?
      vii. Pterygomaxillary fissure?
      viii. Orbital cortices?

**WHAT DO YOU SEE – AND – WHAT DO YOU NOT SEE THAT YOU SHOULD SEE?**
REMEMBER WHAT THE HECK ARE WE DOING?

WHAT THE HECK ARE WE DOING??

Examine the radiographs
List all observations from the radiographs
Attach significance to your observations
Decide nature of disease
Formulate differential diagnosis
Include clinical/histological and patient history information
Make a working diagnosis
Consider special testing methods
Treat the patient

AND HOW DO WE ARRIVE AT A USEFUL DIFFERENTIAL DIAGNOSIS?
<table>
<thead>
<tr>
<th>RECORDED OBSERVATIONS</th>
<th>NORMAL</th>
<th>IF WEIRD MONITOR</th>
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