



The Traffic Light Protocol for OMR Referral

A Practical Guide to Managing Risk,
Improving Patient Outcomes, and Driving
Practice ROI

A clear and repeatable traffic light-based decision framework for managing risk, meeting the standard of care, enhancing patient care, and unlocking ROI in your CBCT imaging workflows.

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Background

For over a century, dental diagnostics relied on 2D radiography, where interpretation was naturally limited by what the technology could show. Cone beam computed tomography (CBCT) has fundamentally changed this equation. We've moved from flat 2D imaging with superimposed anatomy and inaccurate geometry to three-dimensional reality.

While this technological leap has elevated patient care by enabling capabilities such as precise implant planning, complex endodontic diagnosis, and enhanced surgical safety, it has also introduced new professional and legal responsibilities due to the significantly greater amount of anatomical data requiring interpretation.

Utilizing CBCT without a clear, systematic interpretation protocol can feel like running an emergency department without a triage system. With no clear system for determining which cases you can confidently handle and which need specialist review, you're leaving the critical decision of when to seek expert help up to chance. Since every scan contains hundreds of slices, multiple anatomical structures, and critical diagnostic information, you need a method to quickly assess complexity and risk.

This guide provides the triage framework you need to make these important decisions with confidence, helping you implement systems that protect you and your patients, all while positioning your practice for excellence.

WHO THIS GUIDE IS FOR

This guide is designed for any dental professional who takes or interprets CBCT scans: general dentists, endodontists, oral surgeons, orthodontists, periodontists, oral pathologists, pedodontists, prosthodontists, oral medicine and orofacial pain specialists, and their clinical teams. Whether you're new to 3D imaging or have been self-reading scans for years, this framework will help you build a more confident, defensible, and efficient interpretation workflow.

THE STANDARD OF CARE

Your Professional Responsibility

The integration of CBCT into dental practices represents both an opportunity and a responsibility. Unlike the shift from film to digital radiography, CBCT doesn't just improve image generation and viewing capabilities; it exponentially increases the anatomical information you're responsible for reviewing.

Consider this practical reality: A small FOV scan for implant #19 typically captures only 125–512 cubic centimeters (about the size of a soda pop can) of data. That volume includes not just the implant site, but often important anatomical considerations like the maxillary sinus floor/interalveolar canal, adjacent teeth, and surrounding bone, each of which have their own diagnostic considerations.

The American Academy of Oral and Maxillofacial Radiology (AAOMR) has established clear guidelines in their Position Statement, as far back as in 2008: *"It is the practitioners' responsibility to examine the entire image dataset."* This means practitioners who acquire CBCT images are responsible for interpreting the entire volume, not just the region of interest that prompted the scan. The professional standard expects a systematic review of all imaged structures, including: paranasal sinuses and nasal cavity, airway spaces, cervical spine/vertebrae, TMJs, all alveolar bone and dentition, soft tissue calcifications, cranium/foramen, and structures of the ear.

Accordingly, this can lead to the prevalence of incidental findings, or findings that are discovered during the normal course of interpretation that are unrelated to the condition that prompted the test.

REAL BEAMREADERS FINDING

The Meningioma in Mom's Scan

A dentist submitted a 70-year-old female's scan for airway congestion and TMJ evaluation. While reviewing the full cranium, the BeamReaders OMR discovered a hyperdensity in the brain's soft tissue, indicative of a possible neoplasm.

The radiologist called the practice first thing to discuss the finding and recommend an MRI and learned the patient was the dentist's own mother.

An MRI that same day confirmed a meningioma. The patient had no other symptoms, and had it not been for the CBCT to evaluate the congestion and TMJ, and a full-volume review, this could have remained unnoticed and led to significant complications or morbidity.

Incidental Findings Are Not Anomalies

A comprehensive study analyzing 374 CBCT scans found that incidental findings were present in **78% of scans**.¹ That's nearly 4 out of 5 scans, with an average of 2.6 incidental findings per scan.

The findings were also clinically relevant: almost 40% of findings required treatment, with another 25% requiring follow-up. These incidental findings were comprised of: dental pathologies (55%), paranasal sinus and airway pathosis (29%), osseous pathologies (15%), and soft tissue and TMJ (1%).

An additional study noted that carotid artery calcifications were prevalent in approximately 5.7–11.6% of a subject patient population, with prevalence reaching up to 30% in older populations.² These markers of atherosclerotic disease and stroke risk could be potentially lifesaving information if communicated to the patient's physician. Yet this crucial finding may often be overlooked by dentists who have limited familiarity with cross-sectional cervical anatomy.²

The evidence is clear that incidental findings are not rare or anomalous in nature, but rather that they are statistical probabilities, even in small field of view (FOV) scans.³

78%

of CBCT scans contain
incidental findings

Average of 2.6 incidental findings per scan¹

WHAT IS AN OMR?

An OMR is a dentist with additional advanced specialty training in radiology of the oral and maxillofacial region and adjacent structures of the head and neck. They are dentistry's radiology specialists.

¹ Dental and Maxillofacial Cone Beam CT, MDPI 2022 | ² Automated Detection of Cervical Carotid Artery Calcifications, MDPI 2022 | ³ Frequency and types of incidental findings on limited field of view CBCT scans

THE STANDARD OF CARE

The Legal Reality

In legal terms, the “Standard of Care” is defined by what a reasonably prudent practitioner would do in similar circumstances, and courts look to professional associations (like the AAOMR) to define that standard.

As such, the prevailing legal consensus holds that if pathosis is visible within your acquired scan volume, the expectation is that it should have been identified, regardless of the original clinical indication.

Taking smaller field of view (FOV) scans does not change these precedents. In a study of 474 limited-FOV scan volumes, 51% contained at least one incidental finding, with additional treatment or referral being recommended for the majority (70%) of these findings.³

“The results indicate that the use of a CBCT system with a limited FOV does not diminish the need to conduct a thorough evaluation of the images.”³

The FOV you choose determines the data you acquire, and once acquired, that data still carries the same interpretive responsibility.

One final legal point, and common misconception to dispel, is the concept of waivers. One might ask, “Can’t I just have the patient sign a form saying I’m only looking at the teeth?”

However, the legal standpoint is that a patient cannot consent to what the courts view as negligence. Put another way, a patient cannot be asked to waive their right to the standard of care.

REAL BEAMREADERS FINDING**The Defensible Report**

A 75-year-old male presented with mandibular swelling, discomfort, and numbness in the mental nerve distribution. The OMR’s report identified cancer which was later confirmed by biopsy.

When the patient filed a lawsuit against the general dentist for delayed treatment, our client (an oral surgeon), was protected by the documentation our report provided and his appropriate and timely follow-up on those findings. This is a textbook example of why having scans thoroughly read when they are acquired isn’t just good medicine: it’s good risk management.

³ [Frequency and types of incidental findings on limited field of view CBCT scans](#)



A Two-Tiered Approach

Understanding the standard of care and ever-evolving legal landscape can feel overwhelming, but the solution is more practical than you might think. The best part is, you don't need to become an Oral and Maxillofacial Radiologist, you just need a clear, well-defined protocol for determining which scans carry increased risk and require OMR interpretation.

At the highest level, we can look at scans in two ways: those that are, based on your knowledge and education, suitable for self-interpretation, and those that are best sent to a partner OMR for review.



Self-Interpretation

Generally straightforward cases with small FOV, clear findings, and low diagnostic complexity, trained non-radiologist practitioners can interpret the scans themselves, provided they systematically review the entire captured volume and document appropriately.



OMR Partnership

For complex cases, large FOV scans, or situations with diagnostic uncertainty, partnering with an OMR provides specialist-level interpretation, strengthening your diagnosis and documentation, and reducing your liability.

Understanding when each approach is appropriate, and strategically using both, rather than one exclusively, can position a practitioner to meet the standard of care, improve patient outcomes, and attain the strongest return on investment, as we'll cover later.

The protocol outlined in the next section provides a framework to help you determine when each path serves your patient and your practice best.



The Traffic Light Protocol

A Systematic, Defensible Standard

The challenge many practitioners face is understanding why comprehensive interpretation matters. When you've been self-reading scans without incident, or when incidental findings seem rare in your experience, it's easy to view the risk as theoretical. But as we've seen, incidental findings aren't anomalies when they present in over 70%–80% of sampled scans, often with actual clinical relevance.

This is where OMRs become invaluable partners. Their years of advanced specialty training are specifically focused on cross-sectional anatomy, systematic interpretation protocols, and pathosis recognition across all head and neck structures. They're trained to spot conditions such as maxillary sinus pathosis, cervical spine abnormalities, airway issues, and carotid calcifications that fall outside typical dental considerations.

The key is knowing which scans benefit from that partnership and which you can confidently handle yourself.

To get there, the following decision framework is based on an easy-to-understand "Traffic Light" model. Like traffic signals, it uses clear visual cues to guide decision-making and take the guesswork out of CBCT interpretation planning. This approach provides several key benefits:

- **Consistency** — every team member knows the criteria for OMR referral, eliminating case-by-case judgment calls.
- **Defensibility** — demonstrates that your decision followed a systematic, evidence-based protocol.
- **Efficiency** — avoid both under-referral and over-referral.
- **Team Empowerment** — staff can identify red-flag cases during scheduling.
- **Continuous Learning** — the more you work with an OMR, the more you'll learn.



Red Light

Always refer to OMR



Yellow Light

Depends on your experience



Green Light

Self-read acceptable

RED LIGHT

Most Practices Should Always Refer

These cases carry the highest liability and diagnostic complexity. Unless you are highly trained, they should be sent for OMR interpretation.

LARGE FOV SCANS

- Any FOV >8x8cm capturing anatomy beyond the dentition
- Any scan extending to skull base or cervical spine

Why: The volume of data makes missing clinically relevant incidental findings statistically probable for non-radiologists.

SYMPTOMATIC PATIENTS WITH UNCLEAR ETIOLOGY

- Unexplained pain, numbness, or swelling without obvious etiology
- Symptoms that don't match the initial diagnostic impression
- Symptoms that persist/recur after treatment

Why: Highest risk of diagnostic error; often reveals subtle pathosis requiring OMR-level pattern recognition.

KNOWN OR SUSPECTED PATHOSIS

- Any lesion, cyst, asymmetry, or mass being evaluated
- Post-surgical evaluation of treatment for pathosis
- Monitoring of previously identified lesions

Why: Subtle features that completely change the diagnosis are easy to overlook, and accurate characterization requires advanced training. Misdiagnosis can have serious consequences.

HIGH-RISK SURGICAL ANATOMY

- Planning in proximity to IAN, mental foramen, nasopalatine canal, maxillary sinus floor
- Sinus augmentation planning
- Complex extraction planning

Why: Anatomical variations and precise localization are critical. OMR review helps identify variants impacting surgical planning.

MEDICAL HISTORY RED FLAGS

- History of head/neck cancer
- Current/past bisphosphonate use (MRONJ)
- Systemic diseases affecting bone
- Previous radiation therapy
- Complex medical history

Why: Altered risk profiles warrant heightened diagnostic vigilance.

MEDICAL-LEGAL CONCERNS

- Patient has threatened litigation
- Complex medical history with multiple providers
- High-profile patient
- Any level of practitioner uncertainty

Why: Comprehensive OMR documentation provides maximum legal protection.

PATIENT REQUESTS "EXTRA SET OF EYES"

- Exceptionally anxious patient or previous complications
- Patient specifically asks for radiologist review

Why: Patient peace of mind improves treatment acceptance and strengthens loyalty.

INTERFACING WITH THE MEDICAL COMMUNITY

- Referring for carotid artery calcifications, suspected malignancy, pathosis outside the scope of dentistry, and/or sleep/airway evaluations

Why: Radiology reports are the expectation in medicine, providing documentation and instant credibility.

RED LIGHT CASE STUDIES

Why Expert Interpretation Matters

These real cases from BeamReaders OMRs illustrate why Red Light cases demand expert interpretation. In each scenario, the critical finding was unrelated to the original reason for the scan. This is precisely why full-volume interpretation by a trained OMR is so valuable: they evaluate everything captured in the scan, not just the area of clinical interest.

APPLYING THE PROTOCOL

The Defensible Report Revisited

Referencing the case presented on page 6: a 75-year-old male presented with mandibular swelling, discomfort, and anesthesia in the mental nerve distribution. The radiologist's report identified findings consistent with malignancy, later confirmed by biopsy. The patient filed a lawsuit, but the defendants were protected by documentation.

Why this was a Red Light case: This case checks multiple boxes. First, the patient was symptomatic with concerning clinical signs. Numbness in the mental nerve distribution, in particular, is a red flag for malignancy and warrants heightened diagnostic vigilance and documentation. Second, the combination of swelling, discomfort, and sensory changes pointed toward suspected pathosis requiring definitive evaluation. Third, given the presentation, medical-legal exposure was inherently elevated.

As discussed in the Standard of Care section, the expectation is that pathosis visible within your acquired scan volume should be identified, regardless of the original clinical indication. The radiology report documented a comprehensive review of the scan, thoroughly documented the pathosis, and demonstrated that the standard of care had been met.

REAL BEAMREADERS FINDING

Airway Evaluation Reveals Stroke Risk Marker

A 60-year-old female was submitted for airway evaluation. During full-volume review, the radiologist identified a calcified carotid atheroma, which can indicate increased stroke risk. Referral to her primary care provider was recommended if she was not already being managed for cardiovascular risk.

Red Light Criteria Met: Airway evaluations frequently require interfacing with the medical community and often fall outside the primary clinical focus of general dentists. When findings like carotid calcifications are identified, a formal radiology report provides the documentation and credibility needed when communicating with physicians about the patient's systemic health.

REAL BEAMREADERS FINDING

Routine Exam Uncovers Suspected Systemic Disease

A 41-year-old male, new to the referring practice with no medical history on file, came in for a routine exam and cleaning. The radiologist identified extensive sinonasal changes including interruption of the palate, septal perforation, turbinate loss, and collapse of nasal alae.

These findings are suggestive of Granulomatosis with polyangiitis (Wegener's), osteonecrosis, or chronic invasive fungal sinusitis. An expedited ENT referral was recommended.

Red Light Criteria Met: Suspected Pathosis + Medical Referral Required. When unexpected findings of this severity surface, they require specialist involvement and communication with the medical community, regardless of the original indication.

YELLOW LIGHT

Highly Dependent on Your Experience

Yellow light cases are where clinical judgment truly matters. The liability and diagnostic complexity are somewhat elevated, so they require a moderate to high level of training and experience. Your comfort level should guide the decision. The protocol doesn't ask you to stop interpreting cases you're qualified to read; it asks you to be intentional about which ones you take on and which ones benefit from a specialist's perspective. If in any doubt, referral is highly recommended.

ROUTINE IMPLANT PLANNING (MEDIUM FOV)

- Single or multiple implant planning for patient w/straightforward anatomy
- FOV 8x8cm or less where the bone appears adequate
- Goal: Rule out occult pathosis, verify measurements

Consider referral if: Patient has complex medical history, anatomy appears atypical, or you want third-party validation for case presentation.

ENDODONTIC CASES

- Looking for vertical root fractures (VRF)
- Searching for missed canals (MB2, middle distal, C-shaped)
- Evaluating extent of resorption
- Retreatment planning

Consider referral if: Symptoms don't match radiographic findings, treatment failures, or patient is significantly invested in saving the tooth.

TMJ EVALUATION

- TMJ captured in scan, but not primary indication
- Patient reports clicking, pain, or limited opening
- Orthodontic cases where joint position matters

Consider referral if: You don't routinely evaluate or treat TMJ disorders, if patient is symptomatic, treatment plan may alter occlusion, or TMJ findings may otherwise influence treatment plan.

AIRWAY ASSESSMENT

- Orthodontic cases requiring airway evaluation
- Sleep apnea appliance planning
- Airway appears compromised, but you're unsure of significance
- Patient has symptoms of sleep apnea but is undiagnosed

Consider referral if: You are interfacing with the medical community or airway interpretation is outside your primary clinical focus.

SUSPECTED ANATOMICAL VARIATIONS

Any finding that doesn't fit the expected anatomy for that region, including but not limited to:

- Unexpected foramina, canals, or cortical interruptions
- Asymmetry between left and right sides without obvious explanation
- Unusual root or bone morphology, especially if in or near a planned treatment site
- Developmental anomalies (e.g., taurodontism, dens invaginatus) with treatment implications

Consider referral if: the finding is in or near a planned surgical or treatment site, or you are uncertain whether you're looking at a normal variant versus pathosis.

YELLOW LIGHT

 **Yellow Light Case in Practice****REAL BEAMREADERS FINDING*****Double Mental Foramen Identified with Inflammatory Pathology***

A 60-year-old male was referred for endodontic evaluation of the left mandibular first molar (#19). During full-volume review of a small FOV scan (4x4cm), the radiologist identified a second left mental foramen, a clinically significant anatomical variation. Awareness of this finding helps the clinician differentiate it from pathological cortical destruction, optimize local anesthetic delivery, and avoid iatrogenic nerve injury during surgery/implant placement in this region. In this case, that wasn't just a theoretical risk: gross root caries on the adjacent left second premolar (#20) made profound anesthesia and potential extraction or implant placement a near-term clinical reality.

Why is it a yellow light case?

At first glance, this case meets the green light criteria: a straightforward, small-FOV, endodontic evaluation. But it illustrates an important principle: green light self-reads still require a systematic full-volume review, because what starts as a green case can contain findings that shift clinical risk. Here, the incidental identification of a second mental foramen elevates the complexity of interpretation. Anatomical variations like this are easy to overlook on cross-sectional imaging, but it is critical they are identified to reduce the risk of iatrogenic injury to the mandibular nerve during implant or surgical procedures (one of the most common sources of litigation in implant/surgical dentistry).

GREEN LIGHT

Self-Read Acceptable (with proper documentation)

Green Light cases have a relatively lower risk profile and diagnostic complexity. If you are comfortable interpreting cross-sectional anatomy and committed to completing and documenting a systematic review of the entire volume, self-interpretation is likely adequate. That said, “green” doesn’t mean “no risk.” It means the risk profile is manageable for a practitioner who is trained, systematic, and thorough. If at any point you feel uncertain, getting a second opinion is always the smart move.

Some practices choose to refer all cases, including Green Light scans. This isn’t a reflection of ability; it’s a workflow decision. For these practices, outsourcing interpretation saves time, simplifies operations, and provides consistent risk reduction across the board. The protocol supports both approaches: know your threshold, and stay consistent with it.

STRAIGHTFORWARD SINGLE-TOOTH ENDODONTICS

- Obvious periapical pathosis matching clinical presentation
- Clear canal anatomy
- No diagnostic ambiguity
- Healing/resolution of symptoms occurs after treatment
- Adjacent bone and anatomy appear normal

Requirements: Symptoms resolve as expected, no persistent or unusual findings.

LOW-RISK IMPACTED TOOTH ASSESSMENT

- Impacted third molar clearly separated from IAN
- Simple impaction
- No proximity to other teeth or critical structures

Requirements: No pathosis associated with impaction.

LOW-RISK SINGLE-TOOTH IMPLANT

- Adequate bone available/adequate space between planned site and adjacent teeth and significant anatomical structures
- Adequate occlusal space

Requirements: No pathosis associated with implant site. Strong understanding of neurovascular anatomy in the region of implant site.

CRITICAL CAVEAT FOR ALL SELF-READS

Even in “green light” scenarios, you must document the findings (normal and abnormal) of your systematic review of the entire volume. A chart note reading, “CBCT reviewed, implant placement feasible,” does not indicate an adequate interpretation was performed. In a medicolegal context, this note demonstrates that you looked at the scan, but it doesn’t demonstrate what you looked at or how thoroughly you reviewed the volume. Courts and expert witnesses will evaluate your documentation against the standard of care for CBCT interpretation. The following section “Documentation Framework” will provide an easy-to-use outline to enhance your documentation standards.

What to Document When You Self-Read

CBCT Self-Interpretation Documentation Template

If/when you interpret your own CBCT scans, your documentation should include:

1. JUSTIFICATION

Why was the scan necessary? What specific clinical question(s) need to be answered? (ALARA/ALADA compliance)

Why was this FOV size selected?

2. TECHNICAL PARAMETERS

Field of view (FOV) dimensions

Voxel size/resolution

Exposure settings (if relevant to image quality issues)

4. CLINICAL CORRELATION

How do the imaging findings relate to the clinical presentation?

What is your diagnostic impression?

What is the recommended course of action?

3. SEMI-STRUCTURED DOCUMENTATION OF OBJECTIVE FINDINGS

This is the critical component. Your notes should confirm a systematic review was performed by listing the visualized regions and noting findings (both normal and abnormal). For example:

Paranasal sinuses & nasal cavity: Sinuses clear, no mucosal thickening or masses noted and ostiomeatal complexes patent

Airway spaces: Airway patent and the minimum cross-sectional area is sufficient

Cervical vertebrae: No abnormalities visualized.

TMJs: Bilaterally the articular eminences, joint spaces, and condyles normal in shape and size, no erosive changes noted

Dentitions: The dentition is without evidence of pathosis

Alveolar bone: No abnormalities noted and there is adequate bone height and width at proposed site #19

Soft tissues: No calcifications or abnormalities noted

Want to learn more about developing office policies and procedures for imaging? Dr. S. Thomas Deahl DMD PhD authored a comprehensive workbook to help you develop or improve your Radiography Policies and Procedures document. [Get workbook →](#)

Put It Into Practice

Traffic Light Protocol — Practice Worksheet

STEP 1: CONFIRM YOUR QUALIFICATIONS FOR GREEN-LIGHT CASES

Verify the following:

- I am adequately trained and comfortable interpreting cross-sectional/slice anatomy
- I am dedicated to always completing a systematic review of the entire scan (not just the area of interest)
- I am committed to appropriately documenting my systematic review for every scan

I am comfortable and interested in interpreting the following cases:

- Straightforward Single-Tooth Endodontics
- Low Risk Impacted Teeth
- Low Risk Single-Tooth Implant

STEP 2: DETERMINE YOUR YELLOW-LIGHT APPROACH

Review each yellow-light scenario. Determine whether those cases should be red (always refer), green (comfortable self-reading), or remain yellow (case-by-case).

Red	Green	Case-by-case	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Implant planning (multiple)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Implant planning (single)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Complex endodontic cases
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	TMJ Evaluation
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Airway Assessment

STEP 3: OTHER COMMON SCENARIOS

If any box is checked, consider these red-light cases and plan to send these for OMR review:

- Large FOV (>8x8cm)?
- Skull base or cervical spine included?
- Patient symptomatic with unclear diagnosis?
- Unexpected treatment outcome?
- Known/suspected pathosis?
- High-risk surgical anatomy?
- Medical history red flags?
- Any medico-legal concerns?
- Any level of practitioner uncertainty?

Include yellow light cases that should be seen as red-light cases based on your knowledge, skills, or desire to interpret.

STEP 4: SET PATIENT EXPECTATIONS EARLY

Set patient expectations and train your team on communications around OMR review. The later section on Communication Templates offers ready-to-use scripts.

STEP 5: DOCUMENT YOUR DECISION

In your clinical notes, document which category the scan fell into and your rationale.

“CBCT acquired: Limited FOV (5x5cm) for straightforward single-tooth endo. Met green-light criteria. [add your interpretation].”

“CBCT acquired: Large FOV for symptomatic patient with unclear etiology. Met red-light criteria; sent to [Name of Radiology Group] for Radiology Report.”

Beyond Liability: The Real-World ROI of Systematic CBCT Protocols

Up to this point, we've focused primarily on risk mitigation and enhancing your standard of care. These are critical considerations, but they're only part of the story. A well-implemented interpretation protocol can transform how your practice operates, how patients perceive your care, how referring partners view your clinical excellence, and even your bottom line.

1: Operational Efficiency & New Opportunities

A systematic protocol and appropriate partnership with a radiologist saves time and improves workflow. Consider the opportunity cost of interpreting your own scans: 15–20 minutes for thorough systematic review, documenting findings across all anatomical structures, researching any unfamiliar findings, determining appropriate referral recommendations, and lost chair time.

For a practitioner who takes even a handful of scans per week, that's a few hours of time that could be spent on higher revenue-generating procedures, amounting to thousands of dollars per year. Strategic outsourcing of complex cases allows you to focus your expertise where it matters most: clinical treatment and patient care.

Additionally, based on the prevalence of incidental findings, having your cases reviewed may uncover additional treatment opportunities that may otherwise have gone unnoticed.

2: Differentiating Your Practice

In competitive markets, practices look similar on paper with similar services, technology, and pricing. Your CBCT and interpretation protocol can become a meaningful differentiator. Marketing language shifts from, “we have the latest 3D imaging technology” to: “3D scans are systematically reviewed by our team and expert radiologists when necessary, ensuring nothing is missed and giving you the most comprehensive evaluation possible.” This resonates particularly well with educated, health-conscious patients who research their providers, patients who have previously had complications, and patients who expect premium care, ultimately enabling you to grow your practice and justify higher-than-average fees.

3: Improved Treatment Communication & Acceptance

When you present a treatment plan, there's always an inherent, unspoken question in the patient's mind: “Does the dentist really need to do all this?” A radiology report provides powerful third-party validation. Consider a scenario around implants:

Without radiologist report: “Based on your scan, we will need to place a bone graft before we do the implant. That will add about \$2,200 to your treatment.” Patient thinks: “Is this really necessary?”

With radiologist report: “When we look at the radiology report, you can see they identified your bone height is only 6mm, which is below the 10mm minimum we discussed is needed for stable implant placement. Therefore, grafting should be considered for stability and long-term success.”

Patients know the radiologist has no financial stake in your treatment plan, independent findings have added credibility and help patients understand why your recommended treatment is necessary.

4: Practice Growth & Referral Confidence for Specialists

Referring practices entrust the specialists they refer to with their patients and reputation. A strong signal of clinical excellence is how thoroughly you approach diagnostics. Consider:

A: “We took a CBCT and the implant looks good.”

B: “We obtained a CBCT and it was reviewed by an OMR. Their report confirmed adequate bone volume, identified an anterior loop on the IAC, and noted some incidental sinus findings we'll monitor.”

Which doctor would you continue referring to? Systematic protocols signal clinical sophistication and lower risk of missed diagnosis, strengthening referral networks. Even a handful of additional referrals per month can add up quickly.

COMMUNICATION & DOCUMENTATION TEMPLATES

Templates You Can Use Today

As you implement the protocol and documentation standards, you'll want to communicate the new aspects of your care to patients. Here are real-world templates you can use to expedite your approach today.

WHEN RECOMMENDING A CBCT

"We're going to take a 3D scan to get a complete picture of your health. This allows us to plan treatment with precision and ensure we're not missing anything that could affect your treatment."

WHEN REFERRING A SCAN FOR OMR REVIEW

"Because this image is very similar to a CT Scan and includes so much information, I send these scans to a dental radiologist, just like your medical doctor sends a CT scan to a medical radiologist for interpretation. This ensures we're not missing anything and gives you the most thorough evaluation possible. We should have the specialist's report within [insert timeframe]."

WHEN AN INCIDENTAL FINDING IS DISCOVERED

"While reviewing your scan for [primary indication], we identified [finding]. While this wasn't related to what we were originally looking for, I'm so glad we identified it! This is exactly why having a comprehensive review is so valuable. Here's what this means..."

Example — Sinus Finding: *"The scan shows thickening in the lining of your sinus. This is relatively common, but I want to make sure you are able to breathe well. Believe it or not, difficulty with breathing can negatively impact your dental health too, so I think it is important you see an ENT, especially since you reported snoring at night."*

Example — Carotid Calcification: *"Your scan shows calcifications in your carotid arteries, which supply blood to your brain. This can be a marker for cardiovascular disease. I'm going to provide you with a copy of the report and a referral to your physician, so they can determine if any follow-up is needed."*

Example — Unsuspected Pathosis: *"The scan shows an area of concern that requires further evaluation. I'm referring you to an oral surgeon/specialist for assessment. While I understand this is concerning, I'm so glad we are identifying this now, so we can promptly address it."*

Example — Treatment Plan Change: *"I'm really glad we took that 3D scan, so we identified [insert finding] before it became a problem. [Explain how treatment will change]. You're going to have a much better outcome because we are taking this approach."*

DOCUMENTATION OF INCIDENTAL FINDING COMMUNICATION

"Discussed radiology report findings with patient, specifically [describe finding]. Provided patient with copy of report and referral letter for physician. Patient expressed understanding and agreed to follow up with physician. Will follow up at next appointment to confirm patient completed medical consult."

DOCUMENTATION OF OMR REFERRAL

"Patient informed that CBCT scan will be reviewed by Oral and Maxillofacial Radiologist for comprehensive interpretation. Patient expressed understanding and agreement with diagnostic approach. Informed that results will be discussed at follow-up appointment."

FREQUENTLY ASKED QUESTIONS

Common Questions About OMR Engagement

“What if the radiologist finds something I missed? Am I more liable?”

No. You’re actually better protected. Courts recognize that medicine is a collaborative process. Using specialist consultation is considered best practice, not an admission of incompetence.

The defensible position is: “I recognized the complexity of this imaging and appropriately referred it to an OMR for interpretation.”

“Won’t sending scans out slow down my workflow?”

A reputable service should offer quick turnaround to align with typical treatment planning timelines. For cases requiring immediate decision-making (such as acute infections), you can still perform initial assessment and begin treatment while awaiting a comprehensive radiology report or explore if your radiology report provider offers a “rush” option.

In fact, many practices find that outsourcing interpretation speeds workflow by eliminating the 20–30 minutes needed for thorough self-review of large FOV scans, especially in areas where knowledge is weak. This can add up to hundreds of hours per year in time savings.

“Can I still read my own scans if I send some out?”

Absolutely. The traffic light protocol is designed to help you determine which cases warrant OMR review. With a reasonable amount of CE, you can and should continue to interpret and document straightforward scans yourself.

Think of it like endo: you may choose to only do root canals on single rooted teeth and refer multi-rooted teeth to an endodontist.

“What if I see differently than the radiologist’s findings?”

This is where collaborative relationships matter. Reputable radiology services encourage dialogue. If you have questions about findings or interpretation, you should be able to discuss these directly with the radiologist.

Remember: The radiologist only has the images and clinical information you provide, if their imaging findings don’t match the clinical presentation, further communication or investigation is warranted.

“How do I bill for this?”

The choice is yours. Many practices include fees transparently in their case presentation: “Your total investment for the implant includes surgical placement, crown restoration, and comprehensive 3D imaging with specialist radiologist review.” On the other hand, some practices treat radiology reports as overhead, like laboratory fees or sterilization costs, and indirectly include the expense into their overall case pricing.

For complex cases, this becomes a value-add in your patient communication: “Given the complexity of your case, I’m sending your scan to a radiologist to ensure we have the most comprehensive diagnostic information for your treatment plan. This gives us both confidence we’re not missing anything important.” See the Communication Templates section for more info.

OMR PARTNERSHIP IN ACTION

It's Not Always About Pathology

These real cases illustrate how OMR partnership extends beyond finding disease. From catching equipment issues to gathering critical clinical context, these stories show the breadth of value a collaborative radiology relationship delivers.

REAL BEAMREADERS FINDING

When the Machine Itself Is the Problem

An 11-year-old female was submitted to BeamReaders for general evaluation. The images revealed obvious signs of equipment malfunction.

The OMR contacted the practice, walked them through how to get the help of their CBCT manufacturer, and ensured they could get the scan repeated properly.

Sometimes the catch isn't pathology: it's protecting the practice from a bad diagnostic foundation.

REAL BEAMREADERS FINDING

A Phone Call Changed the Report

A 50-year-old female was involved in a biking accident four weeks prior.

However, the initial submission lacked these critical details about changes in her occlusion. The OMR called the practice, gathered the missing history, and produced a more accurate, clinically useful report.

The practice thanked him for his thoroughness, which serves as a reminder that radiology isn't just about images; it's about collaboration.

Evaluating a Radiology Partner

When selecting a radiology service, the credentials and workflow of your partner matter. Ask these questions:

Question	What to Look For	The BeamReaders Advantage
Are all interpretations performed by OMRs?	Avoid services that rely on general dentists with “additional training,” who lack the requisite residency, or MD radiologists who lack dental context.	BeamReaders’ team of 70+ OMRs have all completed a CODA-approved Oral and Maxillofacial Radiology residency and includes some of the preeminent authors and educators in the field.
What is your standard turnaround time?	Reports should generally take under a week. Look for rush options.	BeamReaders offers 3–5 day turn times in the US by default. Our rush option expedites your report to the next business day.
How do you handle STAT/urgent cases?	When time is critical, you shouldn’t have to try and get ahold of your partner only to find they’re on vacation.	BeamReaders’ rush option is as simple as checking a box when you submit a case.
Can I speak directly with the radiologist?	Look for a partner that facilitates communication to help you learn and understand findings.	The BeamReaders platform, VoxDental, is built around chat-based communication with your radiologist.
How are complex cases handled?	Single radiologist/small teams may lack peer consultation options.	BeamReaders has 70+ OMRs with over 350 combined years of experience who can confer on difficult cases (at no additional cost).
What is your pricing structure?	Pricing models should be clear and upfront. Volume discounts can be a benefit.	BeamReaders offers simple tiered pricing based on monthly submission volume. The more you submit, the more you save.
Can you provide sample reports?	Look for easy-to-understand reports with annotated images.	The BeamReaders website includes over a dozen sample reports. Custom report templates are also available.
Is your platform secure?	HIPAA-compliant. Avoid unsecure emails or file sharing.	VoxDental is secure, HIPAA-compliant, and easy to use. Simply upload your files via the web portal.

The Path to Practice Excellence

It's clear that the standard of care for imaging has evolved. The practices that thrive in this landscape have eliminated the guesswork and have clear protocols for determining what they can confidently interpret and which scans warrant specialist review.

- ✓ **The traffic light protocol gives you clarity.** Adopting it means you'll know instantly which cases you can confidently handle, and which benefit from specialist review to eliminate guesswork and create consistency across your team.
- ✓ **Systematic documentation gives you defensibility.** When you can demonstrate that every scan received a thorough, protocol-driven evaluation, whether by yourself or from an expert OMR, you're protected by process, not luck.
- ✓ **OMR partnership gives you diagnostic precision.** Partnering with an OMR, especially by way of a service like BeamReaders, goes beyond reducing liability. It validates your treatment plans, improves case acceptance, strengthens referral relationships, and often uncovers additional treatment opportunities and real ROI.

Together, these elements transform 3D imaging from a source of risk into a competitive advantage that protects your patients, elevates your standard of care, and drives measurable practice growth.



JOIN THE THOUSANDS OF PRACTICES WHO TRUST BEAMREADERS

Getting Started Takes Less Than 5 Minutes

You've just learned a systematic approach to CBCT risk management that protects your patients and your practice. Now it's time to implement it by partnering with BeamReaders. After almost 20 years and hundreds of thousands of interpretations, we've built the infrastructure, expertise, and technology to make a partnership effortless for your practice.



CREATE YOUR FREE ACCOUNT

No setup fees, monthly minimums, or subscriptions. You only pay per report ordered.



UPLOAD YOUR FIRST SCAN

Drag and drop your DICOM files and fill in basic patient demographics.



RECEIVE YOUR REPORT

Comprehensive interpretation within 3-5 days, or next-day as an option.

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"I just wanted to write a supreme thank you to BeamReaders. I wanted to let you know that as of now, we are both responsible for finding carotid calcifications that allowed my patient to see an interventional radiologist who used Doppler technology to find that his carotid artery was 90% occluded and with his history of Burkitt's Lymphoma, led his physicians to remove this blockage and he successfully completed this surgery 2 weeks ago. He gave me a big hug, but without your service and the recognition that you deserve, that hug doesn't happen. And you don't always get the recognition or the hug. I just wanted to make sure that you knew about this and that you have impacted my practice and my patient's life in a real and impactful way. Thank you for your service and for making us look better."

— Dr. Zackary T. Faber, DDS | Faber Orthodontics



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