



## Physician

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## Patient Summary

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|                       |  |
|-----------------------|--|
| Name                  | John Smith   |
| Date of Birth         | 1972-03-25   |
| Sex                   | Male   |
| Phone                 | 512-555-1212   |
| Email                 | jsmith@gmail.com   |
| Nationality           | Other  |
| Height (cm)           | 6 foot 4 inches  |
| Weight (kg)           | 241 lbs  |
| Last Seen             | 2025-07-24   |
| Lifestyle             | Exercise: 3 times a week; Diet: Balanced, low in sugar, mostly fruits and vegetables; Alcohol: Glass of wine per day; Drugs: None; Smoking: None |
| Medications           | Repatha SureClick once a month   |
| Family History        | Grandfather had a double bypass at age 54, then lived to 89. Died of Parkinson's disease that turned later to dementia.                          |
| Past Medical History  | Some minor sports injuries due to martial arts.  |
| Past Surgical History | Patient had appendix removed in 2008 after injecting seeds from small fruits and infection started.  |

|                           |  |
|---------------------------|--|
| <b>Supplements</b>        | Dandelion (200mg daily), Dandelion (250mg daily)   |
| <b>Allergies</b>          | Ragweed  |
| <b>Symptoms (Patient)</b> | Complains of pain in their elbow with slight bruising and swelling. Notices a sharp pain when leans on elbow, and appearance by touch of a bone-chip like object attached but floating in the elbow. |
| <b>Initial Exam</b>       | Swollen elbow, some bruising and material floating internally.   |
| <b>Course / Changes</b>   | Bruising has subsided. Some swelling remains after 3 weeks.  |
| <b>Onset Date</b>         | 2026-02-22   |



## Hybrid Analysis 02/25/2026

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### Patient Data

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|                         |  |
|-------------------------|--|
| Name                    | John Smith   |
| Date of Birth           | 1972-03-25   |
| Age at time of analysis | 53   |
| Sex                     | Male   |
| Symptoms (patient)      | Complains of pain in their elbow with slight bruising and swelling. Notices a sharp pain when leans on elbow, and appearance by touch of a bone-chip like object attached but floating in the elbow. |
| Initial exam            | Swollen elbow, some bruising and material floating internally.   |
| Course/changes          | Bruising has subsided. Some swelling remains after 3 weeks.  |
| Onset date              | 2026-02-22   |
| Medications             | Repatha SureClick once a month   |
| Supplements             | Dandelion (200mg daily), Dandelion (250mg daily)   |
| Allergies               | Ragweed  |
| Family history          | Grandfather had a double bypass at age 54, then lived to 89. Died of Parkinson's disease that turned later to dementia.  |
| Past medical history    | Some minor sports injuries due to martial arts.  |
| Past surgical history   | Patient had appendix removed in 2008 after injecting seeds from small fruits and infection started.  |
| Lifestyle               | Exercise 3 times a week, diet Balanced, low in sugar, mostly fruits and vegetables, alcohol Glass of wine per day, drugs None, smoking None  |

Anthropometrics

Ht 6 foot 4 inches, Wt 241 lbs

Nationality

Other

Last seen

2025-07-24

## Labs Analysis

Panel ID

labs-2026-02-22T17:07:06.252Z

Interpreted At

2026-02-22T17:07:06.252Z

| Analyte                                | Value | Unit  | Normal Range | Range Graphic |
|--|-------|-------|--------------|---------------|
| Cholesterol, Total                     | 187   | mg/dL | 125–200      |               |
| HDL Cholesterol                        | 37    | mg/dL | 40–60        |               |
| Triglycerides                          | 169   | mg/dL | 0–150        |               |
| LDL Cholesterol (calculated)           | 121   | mg/dL | 0–100        |               |
| Cholesterol Total/HDL Ratio            | 5.1   |       | 0–5          |               |
| Non-HDL Cholesterol                    | 150   | mg/dL | 0–130        |               |
| Prostate Specific Antigen (PSA), Total | 1.05  | ng/mL | 0–4          |               |
| Hemoglobin                             | 15.9  | g/dL  | 13.2–17.1    |               |
| Hematocrit                             | 48.2  | %     | 38.5–50.0    |               |
| Mean Corpuscular Volume (MCV)          | 98.8  | fL    | 80.0–100.0   |               |
| Mean Corpuscular Hemoglobin (MCH)      | 32.6  | pg    | 27.0–33.0    |               |
| Mean Corpuscular Hemoglobin            | 33.0  | g/dL  | 32.0–36.0    |               |

| Analyte                    | Value | Unit          | Normal Range | Range Graphic |
|----------------------------|-------|---------------|--------------|---------------|
| Concentration (MCHC)       |       |               |              |               |
| Platelets                  | 253   | Thousand/uL   | 140–400      |               |
| Mean Platelet Volume (MPV) | 10.6  | fL            | 7.5–12.5     |               |
| Absolute Neutrophils       | 2697  | cells/uL      | 1500–7800    |               |
| Absolute Lymphocytes       | 1148  | cells/uL      | 850–3900     |               |
| Absolute Monocytes         | 365   | cells/uL      | 200–950      |               |
| Absolute Eosinophils       | 150   | cells/uL      | 15–500       |               |
| Absolute Basophils         | 40    | cells/uL      | 0–200        |               |
| Glucose                    | 110   | mg/dL         | 65–99        |               |
| Urea Nitrogen (BUN)        | 22    | mg/dL         | 7–25         |               |
| Creatinine                 | 1.02  | mg/dL         | 0.70–1.30    |               |
| eGFR                       | 85    | mL/min/1.73m2 | 90–120       |               |
| Sodium                     | 138   | mmol/L        | 135–146      |               |
| Potassium                  | 4.9   | mmol/L        | 3.5–5.3      |               |
| Chloride                   | 106   | mmol/L        | 98–110       |               |
| Carbon Dioxide             | 24    | mmol/L        | 20–32        |               |
| Calcium                    | 9.0   | mg/dL         | 8.6–10.3     |               |
| Protein, Total             | 6.6   | g/dL          | 6.1–8.1      |               |

| Analyte                          | Value     | Unit  | Normal Range | Range Graphic  |
|----------------------------------|-----------|-------|--------------|--|
| Albumin                          | 4.3       | g/dL  | 3.6–5.1      |                                   |
| Globulin (calculated)            | 2.3       | g/dL  | 1.9–3.7      |                                   |
| Albumin/Globulin Ratio           | 1.9       |       | 1.0–2.5      |                                   |
| Bilirubin, Total                 | 0.6       | mg/dL | 0.2–1.2      |                                   |
| Alkaline Phosphatase             | 59        | U/L   | 35–144       |                                   |
| AST (Aspartate Aminotransferase) | 17        | U/L   | 10–35        |                                   |
| ALT (Alanine Aminotransferase)   | 18        | U/L   | 9–46         |                                   |
| Urine Glucose                    | NEGATIVE  |       | –            | <br>Reference range unavailable |
| Urine Bilirubin                  | NEGATIVE  |       | –            | <br>Reference range unavailable |
| Urine WBC                        | NONE SEEN | /HPF  | 0–5          | <br>Reference range unavailable |
| Urine RBC                        | NONE SEEN | /HPF  | 0–3          | <br>Reference range unavailable |

### Clinical synthesis (labs)

- **Cardiometabolic context:** Glucose 110 mg/dL (elevated) with Triglycerides 169 mg/dL (high) and HDL Cholesterol 37 mg/dL (low) suggests insulin resistance risk; relevant to healing/inflammation and long-term ASCVD risk.

- **Renal context for medication selection:** Creatinine 1.02 mg/dL with eGFR 85 mL/min/1.73m<sup>2</sup> (mildly reduced) supports cautious NSAID use (lowest effective dose, shortest duration) and preference for topical/local therapies when feasible.
- **Hematologic/infectious screen (limited):** Absolute Neutrophils 2697 cells/uL and Platelets 253 Thousand/uL are not suggestive of systemic infection or thrombocytopenia; however, inflammatory markers are not provided.
- **Lipids despite PCSK9 inhibitor use:** LDL Cholesterol (calculated) 121 mg/dL and Non-HDL Cholesterol 150 mg/dL remain above typical high-risk targets; family history of premature CAD (grandfather bypass at 54) increases pre-test probability for inherited risk and warrants reassessment of lipid strategy (separate from elbow complaint).

## Summary Table

| Diagnosis  | Estimated Probability (%) | Key Discriminating Features  |
|--|---------------------------|--|
| Olecranon bursitis (post-traumatic/aseptic & possible hemorrhagic)   | 45                        | Posterior elbow swelling after bruising; sharp pain with leaning on elbow; persistent swelling at 3 weeks; no systemic symptoms provided.                            |
| Intra-articular loose body / osteochondral fragment (post-traumatic) | 35                        | Palpable "bone-chip like" mobile structure; history of martial arts injuries; persistent focal mechanical pain; needs imaging to confirm.                            |
| Septic olecranon bursitis (must-not-miss)                            | 20                        | Swollen bursa can be infected even without prominent systemic signs; discriminated by warmth/erythema, fever (not provided), and bursal aspirate cell count/culture. |

## Possible Diagnoses – Workup & Plan

**Diagnosis 1: Olecranon bursitis (post-traumatic/aseptic & possible hemorrhagic)**

**Overview:** Posterior elbow swelling and pain with pressure (leaning) after bruising is most consistent with olecranon bursitis, often post-traumatic or from repetitive pressure; persistent swelling at 3 weeks supports ongoing bursal inflammation. BMI is ~29.3 (overweight), which can correlate with higher cardiometabolic risk and may modestly impair recovery; family history of premature CAD increases baseline ASCVD risk (context for NSAID risk/overall care).

### **Suggested Workup**

- **Focused exam:** document location (posterior vs intra-articular), warmth/erythema, fluctuance, skin breaks, ROM limits, neurovascular status — not provided.
- **Point-of-care ultrasound (elbow):** confirm bursal fluid, assess septations/hematoma, and look for loose body; can guide aspiration if indicated.
- **Plain radiographs (AP/lateral/oblique elbow):** evaluate for olecranon spur, fracture, calcific bodies, or foreign body given “floating” material.
- **Aspiration only if indicated:** if erythema/warmth, significant pain, recurrent swelling, immunocompromise (not provided), or diagnostic uncertainty; send for cell count with differential, Gram stain, culture, and crystal analysis.
- **Must-not-miss:** septic bursitis and occult fracture/dislocation; urgent evaluation if fever, rapidly progressive erythema, severe pain, or inability to move elbow — fever not provided.

### **Lab Correlation**

#### **Supports**

- **Absolute Neutrophils 2697 cells/uL (normal):** absence of neutrophilia reduces likelihood of systemic bacterial response, consistent with aseptic bursitis (does not exclude localized infection).
- **Hemoglobin 15.9 g/dL (normal) & Platelets 253 Thousand/uL (normal):** normal oxygen-carrying capacity and platelet count make major bleeding diathesis less likely as a driver of persistent hemorrhagic swelling.
- **Creatinine 1.02 mg/dL (normal) & eGFR 85 mL/min/1.73m<sup>2</sup> (mildly low):** supports ability to use short NSAID courses if needed, but mild renal reduction favors topical/local measures and shortest duration dosing.

- **Glucose 110 mg/dL (high):** impaired fasting glucose can increase glycation and impair soft-tissue healing, potentially prolonging inflammatory symptoms.

### Argues against / missing

- ESR — **not provided**
- CRP — **not provided**
- WBC (total leukocyte count) — **not provided**
- Bursal fluid cell count with differential — **not provided**
- Bursal fluid Gram stain/culture — **not provided**

### Next Discriminators

- Elbow ultrasound
- Elbow X-ray (AP/lateral/oblique)
- Bursal aspiration: cell count with differential, Gram stain, culture, crystal analysis
- ESR

### Missing Key Labs (not provided)

- CRP — **not provided**
- ESR — **not provided**
- WBC (CBC with differential, total) — **not provided**
- Bursal fluid crystal analysis — **not provided**
- Bursal fluid Gram stain and culture — **not provided**
- HbA1c — **not provided**

### Medications

- **First-line (med-minimizing option):** topical diclofenac 1% gel, apply 2–4 g to affected area up to 4 times daily for 7–14 days; monitor for local dermatitis; minimal systemic exposure (preferred with eGFR 85).
- **If inadequate and patient accepts short systemic course:** naproxen 250 mg PO twice daily with food for 3–5 days, then stop; avoid dehydration; monitor for GI upset/bleeding and BP effects — BP not provided. Consider adding gastroprotection only if high GI risk (history not provided).
- **Alternatives:** acetaminophen 500 mg PO every 6–8 hours PRN (max 3000 mg/day) for pain if NSAIDs avoided; less anti-inflammatory effect but renal-sparing.

- **Procedural option (step-up):** if persistent symptomatic bursal effusion after conservative care and infection excluded, consider ultrasound-guided aspiration ± intrabursal corticosteroid (agent/dose per local protocol) with counseling re recurrence/skin atrophy.
- **Contraindications / Interactions (relevant):** NSAIDs—use caution with mildly reduced eGFR (85) and alcohol intake (wine daily) due to GI risk; dandelion supplements may have diuretic effects (monitor hydration) and can complicate volume status when using NSAIDs.

### Non-pharmacologic

- **Pressure avoidance:** stop leaning on elbow; use elbow pad/compression sleeve (light compression; avoid excessive tightness).
- **RICE-modified:** ice 10–15 min up to 3–4x/day; relative rest; gentle ROM to prevent stiffness (avoid painful loading).
- **Activity modification:** pause martial arts/impact activities until swelling resolves and ROM/pain normalize.
- **Skin care:** inspect for abrasions/folliculitis over olecranon; keep clean/dry; no wound details provided.
- **Cardiometabolic adjunct:** given BMI ~29.3 and glucose 110, reinforce sleep, regular exercise (already 3x/week), and weight reduction goals to support recovery and long-term risk reduction.

### Red Flags / Escalation

- Fever, chills, rapidly increasing redness/warmth, severe tenderness, or purulent drainage — fever/drainage not provided.
- Marked limitation of elbow ROM, severe pain with passive motion, or neurovascular symptoms (numbness/weakness/cool hand) — not provided.
- Expanding hematoma, anticoagulant use (not provided), or recurrent swelling despite protection.

### Dietary Considerations

- **Positive:** emphasize protein adequacy (fish, poultry, legumes, Greek yogurt), vitamin C sources (citrus, bell peppers), and omega-3-rich foods (salmon, sardines, chia/flax) to support tissue repair.

- **Negative:** limit ultra-processed foods and excess refined carbohydrates which can worsen insulin resistance (context: Glucose 110 mg/dL, Triglycerides 169 mg/dL).
- **Hydration:** renal/cardiac fluid restrictions — **not provided**; conservative guidance: maintain pale-yellow urine, avoid dehydration (especially if using NSAIDs and with dandelion's potential diuretic effect); limit excess alcohol beyond current 1 glass/day.
- **Condition-specific:** if using NSAIDs, take with food; avoid combining with additional alcohol on dosing days to reduce GI risk.
- **Do not overclaim:** diet is supportive and may reduce recurrence risk; it does not replace imaging/aspiration when indicated.

### Follow-Up

- **Timeframe:** 7–10 days (earlier in 48–72 hours if worsening).
- **Reassess:** size of swelling, warmth/erythema, pain with pressure, ROM, and function; confirm adherence to pressure avoidance.
- **Repeat/next tests:** if persistent swelling at 2–3 additional weeks or mechanical symptoms, obtain elbow ultrasound and/or X-ray (if not already done); if infection concern emerges, perform bursal aspiration and consider ESR/CRP.

### **Diagnosis 2: Intra-articular loose body / osteochondral fragment (post-traumatic)**

**Overview:** A palpable “bone-chip like” mobile structure with sharp pain suggests a loose body (osteochondral fragment, synovial chondromatosis less likely) or avulsed spur; martial arts history increases pre-test probability for prior occult trauma. Persistent symptoms at 3 weeks warrants imaging to exclude fracture/loose body that may require orthopedic management.

### Suggested Workup

- **History details:** specific injury mechanism, locking/catching, ROM loss, instability, ulnar nerve symptoms — not provided.
- **Physical exam:** assess mechanical symptoms, crepitus, effusion, ROM, valgus/varus stability, ulnar nerve Tinel at cubital tunnel — not provided.
- **Imaging step-up:** plain radiographs first; if negative but suspicion persists, MRI elbow (cartilage/osteochondral injury) or CT (bony

fragment characterization) depending on suspected lesion.

- **Ultrasound:** may identify superficial loose bodies and differentiate bursal vs intra-articular pathology.
- **Must-not-miss:** occult fracture (olecranon/radial head/coronoid) and elbow instability; urgent imaging if significant ROM limitation or deformity — not provided.

## Lab Correlation

### Supports

- **Calcium 9.0 mg/dL (normal):** normal serum calcium does not drive calcific deposition; supports a mechanical/traumatic etiology rather than systemic mineral imbalance.
- **Alkaline Phosphatase 59 U/L (normal):** argues against high-turnover bone disease as a cause of ectopic ossification; consistent with localized injury.
- **Absolute Neutrophils 2697 cells/uL (normal):** absence of systemic leukemoid response supports non-infectious mechanical pathology.
- **Creatinine 1.02 mg/dL & eGFR 85 mL/min/1.73m<sup>2</sup>:** relevant for analgesic selection while awaiting imaging; favors topical NSAID/acetaminophen first.

### Argues against / missing

- ESR — **not provided**
- CRP — **not provided**
- WBC (total leukocyte count) — **not provided**
- Elbow X-ray report — **not provided**
- MRI elbow — **not provided**

### Next Discriminators

- Elbow X-ray (AP/lateral/oblique)
- Elbow ultrasound
- MRI elbow
- CT elbow

### Missing Key Labs (not provided)

- ESR — **not provided**
- CRP — **not provided**

- WBC (CBC with differential, total) — **not provided**
- Uric acid — **not provided**
- Elbow X-ray — **not provided**
- MRI elbow — **not provided**

### Medications

- **First-line (symptom control while diagnosing):** acetaminophen 500 mg PO every 6–8 hours PRN (max 3000 mg/day) for 3–7 days; monitor total daily dose and alcohol intake (wine daily).
- **Adjunct (if inflammatory pain and patient accepts minimal meds):** topical diclofenac 1% gel up to 4x/day for 7–14 days; stop if rash.
- **Avoid escalation without diagnosis:** prolonged oral NSAIDs are not preferred given eGFR 85 and uncertain structural lesion; use only short course if needed (e.g., ibuprofen 400 mg PO every 8 hours with food for up to 3 days).
- **Contraindications / Interactions (relevant):** NSAIDs—renal/GI risk; dandelion may increase diuresis and dehydration risk; no anticoagulants provided.

### Non-pharmacologic

- **Mechanical protection:** avoid pressure and impact; elbow pad; avoid provocative positions.
- **ROM maintenance:** gentle active ROM several times daily; avoid forced extension/flexion if it triggers sharp pain.
- **Referral (step-up):** orthopedic or sports medicine evaluation if imaging confirms loose body or if locking/catching develops — locking not provided.
- **Work/activity:** modify training; avoid grappling/throws until structural injury excluded.

### Red Flags / Escalation

- True mechanical locking, sudden ROM block, or progressive loss of motion — not provided.
- New neurologic symptoms (ulnar distribution numbness/weakness) — not provided.

- Severe pain after minor movement suggesting displaced fracture or intra-articular pathology; urgent imaging.

### **Dietary Considerations**

- **Positive:** adequate protein (25–35 g/meal as tolerated), calcium/vitamin D sources (dairy/fortified alternatives, leafy greens) to support bone/soft tissue recovery.
- **Negative:** limit excess alcohol beyond current intake, particularly if using acetaminophen (hepatotoxicity risk) and to support recovery.
- **Hydration:** renal/cardiac status — **not provided**; general guidance: maintain steady fluid intake and avoid dehydration during exercise; avoid excessive caffeinated/diuretic beverages if swelling management is difficult.
- **Condition-specific:** given Glucose 110 mg/dL and triglycerides 169 mg/dL, continue low added-sugar pattern; emphasize high-fiber carbs (beans, oats) to support metabolic control during reduced activity.
- **Do not overclaim:** diet supports recovery but does not remove a loose body; imaging and possible procedural management may be required.

### **Follow-Up**

- **Timeframe:** 1–2 weeks, sooner if mechanical symptoms worsen.
- **Reassess:** mechanical symptoms (catching/locking), ROM, focal tenderness, and ability to bear pressure on elbow.
- **Repeat/next tests:** obtain elbow X-ray now if not done; if X-ray negative and symptoms persist beyond 2–4 weeks, proceed to MRI or CT based on suspected lesion.

### **Diagnosis 3: Septic olecranon bursitis (must-not-miss)**

**Overview:** Olecranon swelling can be infected even without prominent systemic symptoms; the current dataset does not provide fever, erythema, warmth, skin break, or immunocompromise status, so infection cannot be excluded. Given persistent swelling and pain with pressure, septic bursitis remains a key rule-out due to risk of progression and need for drainage/antibiotics.

### **Suggested Workup**

- **Focused exam:** temperature of skin, erythema, fluctuance, tenderness severity, regional lymphangitis, skin lesions/abrasions — not provided.
- **Vitals:** temperature, HR, BP — not provided.
- **Diagnostic aspiration (preferred discriminator):** bursal fluid for cell count with differential, Gram stain, aerobic/anaerobic culture, and crystal analysis; consider glucose/protein in fluid per local practice.
- **Blood tests if systemic features:** CBC with differential (total WBC), CRP, ESR; blood cultures if febrile — fever not provided.
- **Imaging:** ultrasound to confirm collection and guide aspiration; X-ray if concern for foreign body/osteomyelitis or fracture.
- **Must-not-miss:** septic arthritis (pain with passive ROM, marked ROM limitation) and necrotizing soft tissue infection (rapid progression, severe pain out of proportion) — not provided.

## Lab Correlation

### Supports

- **Glucose 110 mg/dL (high):** dysglycemia can impair neutrophil chemotaxis and phagocytosis, increasing susceptibility to skin/soft tissue infection and prolonging recovery.
- **eGFR 85 mL/min/1.73m<sup>2</sup> (low) & Creatinine 1.02 mg/dL (normal):** mild renal reduction matters for antibiotic selection/dosing if infection confirmed (avoid unnecessary nephrotoxic combinations; dose-adjust renally cleared agents as needed).
- **Absolute Neutrophils 2697 cells/uL (normal):** lack of neutrophilia argues against systemic bacterial infection but does not exclude localized septic bursitis.
- **Urine WBC NONE SEEN /HPF (normal):** absence of pyuria suggests no concurrent UTI source; does not inform local elbow infection directly.

### Argues against / missing

- CRP — **not provided**
- ESR — **not provided**
- WBC (CBC with differential, total) — **not provided**
- Bursal fluid Gram stain — **not provided**
- Bursal fluid culture — **not provided**

### Next Discriminators

- Bursal aspiration: cell count with differential

- Bursal fluid Gram stain and culture
- CRP
- Elbow ultrasound

### **Missing Key Labs (not provided)**

- Temperature — **not provided**
- WBC (CBC with differential, total) — **not provided**
- CRP — **not provided**
- ESR — **not provided**
- Bursal fluid cell count with differential — **not provided**
- Bursal fluid Gram stain and culture — **not provided**

### **Medications**

- **Principle:** avoid empiric antibiotics unless clinical suspicion is moderate/high or aspiration performed; antibiotics can sterilize cultures and reduce diagnostic yield.
- **If high suspicion or after aspiration:** start empiric coverage for staphylococci/streptococci per local resistance patterns; options include:
  - cephalexin 500 mg PO every 6 hours for 7–10 days (if low MRSA risk; penicillin/cephalosporin allergy — not provided).
  - trimethoprim-sulfamethoxazole (160/800 mg) 1 tab PO twice daily for 7–10 days (if MRSA risk; monitor potassium/renal function; Potassium 4.9 mmol/L is high-normal and eGFR 85 supports use with monitoring).
  - doxycycline 100 mg PO twice daily for 7–10 days (MRSA option; photosensitivity/GI effects).
- **Analgesia (lowest effective):** acetaminophen as above; avoid prolonged NSAIDs given eGFR 85 and potential need for renal-safe antibiotic choices.
- **Contraindications / Interactions (relevant):** trimethoprim-sulfamethoxazole can raise potassium and creatinine; monitor given Potassium 4.9 and eGFR 85; doxycycline interacts with polyvalent cations (separate from calcium/iron supplements — not provided). Ragweed allergy is not a typical contraindication to listed antibiotics.

### **Non-pharmacologic**

- **Drainage strategy:** aspiration (diagnostic and therapeutic) when indicated; consider repeat aspiration if re-accumulates.
- **Local care:** compression wrap after aspiration if tolerated; elevate; avoid pressure/trauma.
- **Infection control:** keep any overlying skin lesions clean/covered; assess for portal of entry — not provided.
- **Medication-minimizing preference:** emphasize definitive diagnosis via aspiration/ultrasound rather than prolonged empiric medication trials.

### Red Flags / Escalation

- Fever, rigors, tachycardia, hypotension — vitals not provided.
- Rapidly spreading erythema, severe pain, bullae, skin necrosis, or pain out of proportion (concern for necrotizing infection).
- Severe pain with passive ROM or inability to move elbow (concern for septic arthritis).
- Immunocompromise, diabetes diagnosis (not provided), or failure to improve within 48–72 hours of appropriate therapy.

### Dietary Considerations

- **Positive:** prioritize adequate calories/protein during infection recovery; include zinc/selenium sources (seafood, legumes, nuts) and vitamin C foods.
- **Negative:** limit alcohol while on antibiotics and during suspected infection; avoid high added-sugar intake given Glucose 110 mg/dL.
- **Hydration:** renal/cardiac restrictions — **not provided**; conservative guidance: maintain hydration (water, unsweetened tea), especially if febrile (fever not provided) or on antibiotics; avoid dehydration with dandelion supplementation.
- **Condition-specific:** if using trimethoprim-sulfamethoxazole, avoid excessive high-potassium salt substitutes; Potassium is 4.9 mmol/L (high-normal).
- **Do not overclaim:** diet supports immune function but does not replace aspiration/drainage and antibiotics when infection is present.

### Follow-Up

- **Timeframe:** 24–48 hours if infection is suspected or antibiotics started; otherwise 7 days.
- **Reassess:** fever (not provided), erythema/warmth, pain trajectory, bursal size, ROM, and tolerance of therapy.
- **Repeat/next tests:** review bursal fluid culture results when available; if worsening or systemic signs, obtain CBC with differential, CRP, and consider blood cultures; repeat ultrasound if re-accumulation suspected.