

SKILL LAB  
ILMU BEDAH ORTOPEDI



# SEPTIC ARTHRITIS

## DEFINISI

Inflamasi pada **ruang sendi** yang disebabkan oleh infeksi berbagai mikroorganisme (terutama bakteri)

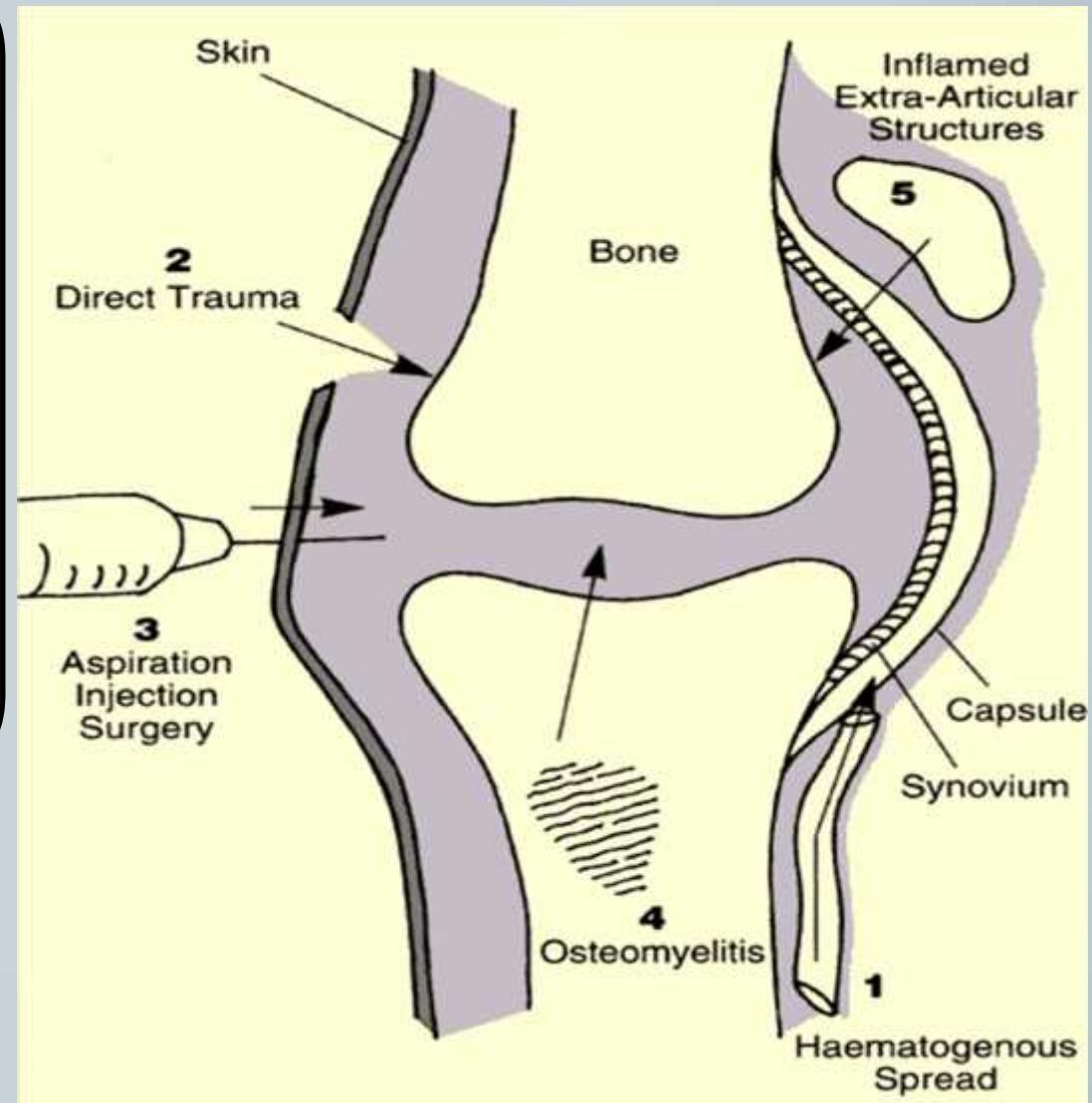
## ETIOLOGI

- *N. Gonorrhoeae*
- *S. Aureus*
- Streptococcus sp
- KBB gram negatif
- Lain-lain: polimikrobial, bakteri anaerob, virus, mycobacteria, fungi

# PATOGENESIS

Rute infeksi:

1. Hematogen
2. Trauma langsung
3. Iatrogenik
4. Osteomyelitis akut
5. Infeksi jaringan lunak sekitar



## FAKTOR RISIKO

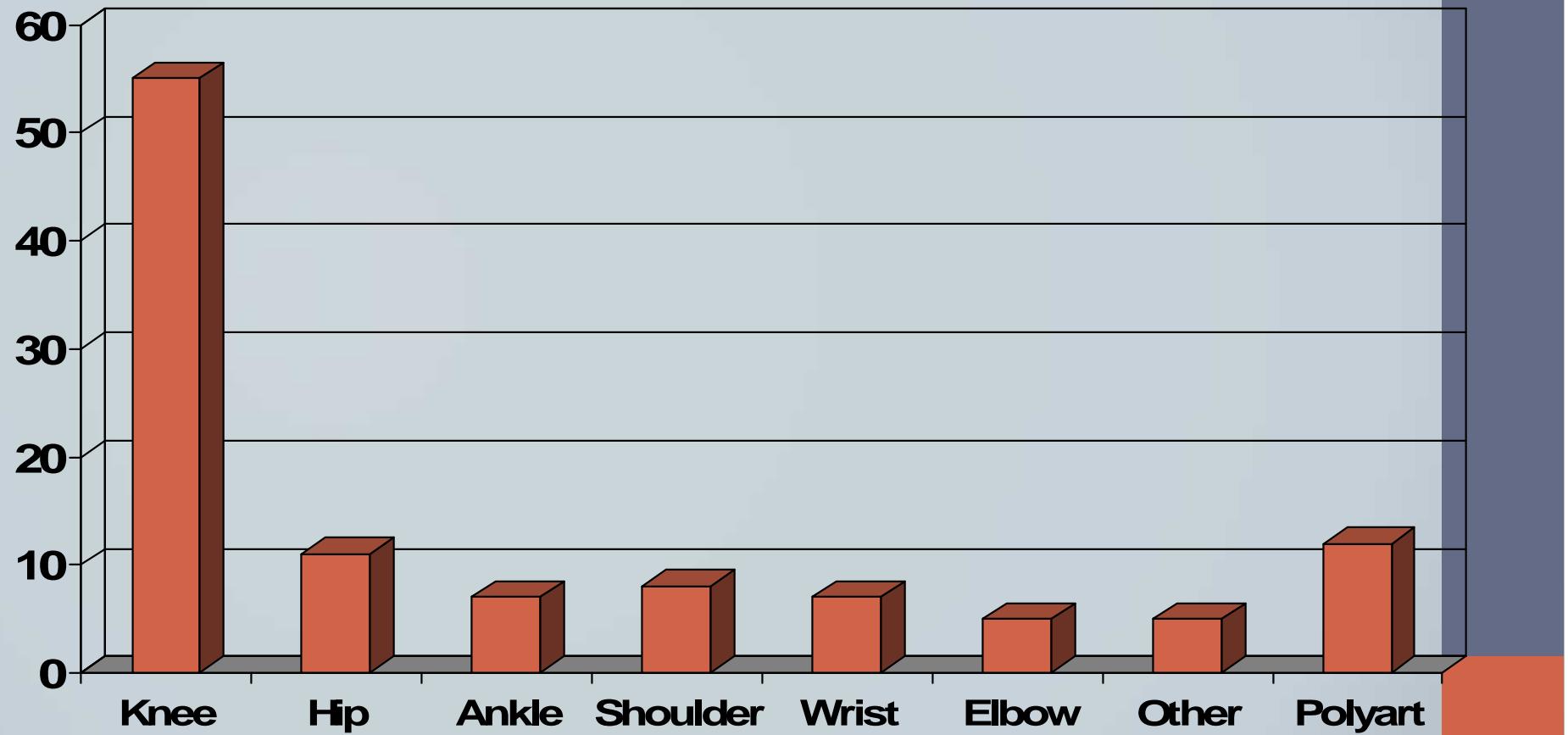
- RA
- Joint Prosthesis
- Status Ekonomi Menengah Ke bawah
- Pecandu Obat Suntik
- Alkoholisme
- DM
- Riwayat Injeksi kortikosteroid
- Cutaneus Ulcers

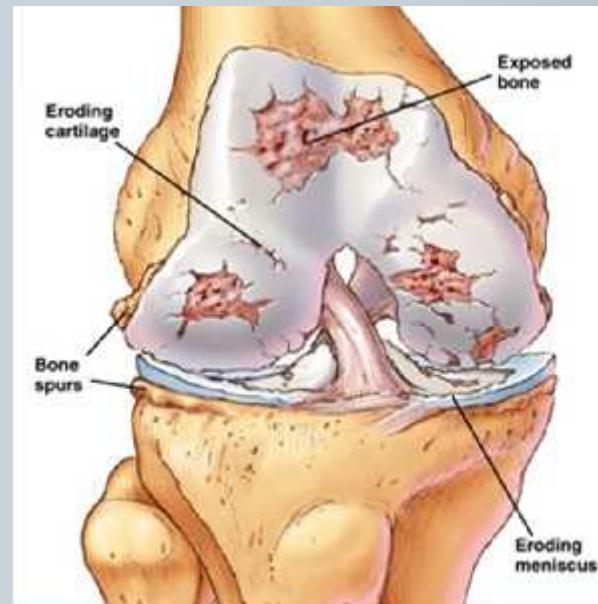
## GEJALA DAN TANDA

- Demam
- Keterbatasan RO ( *pseudo paralysis* )
- Eritema, edema, hangat, dan nyeri pada sendi yang terinfeksi
- *Fatigue and weakness*
- *Rewel (pada anak)/ irritable*

# Septic Arthritis

## Joints Involved



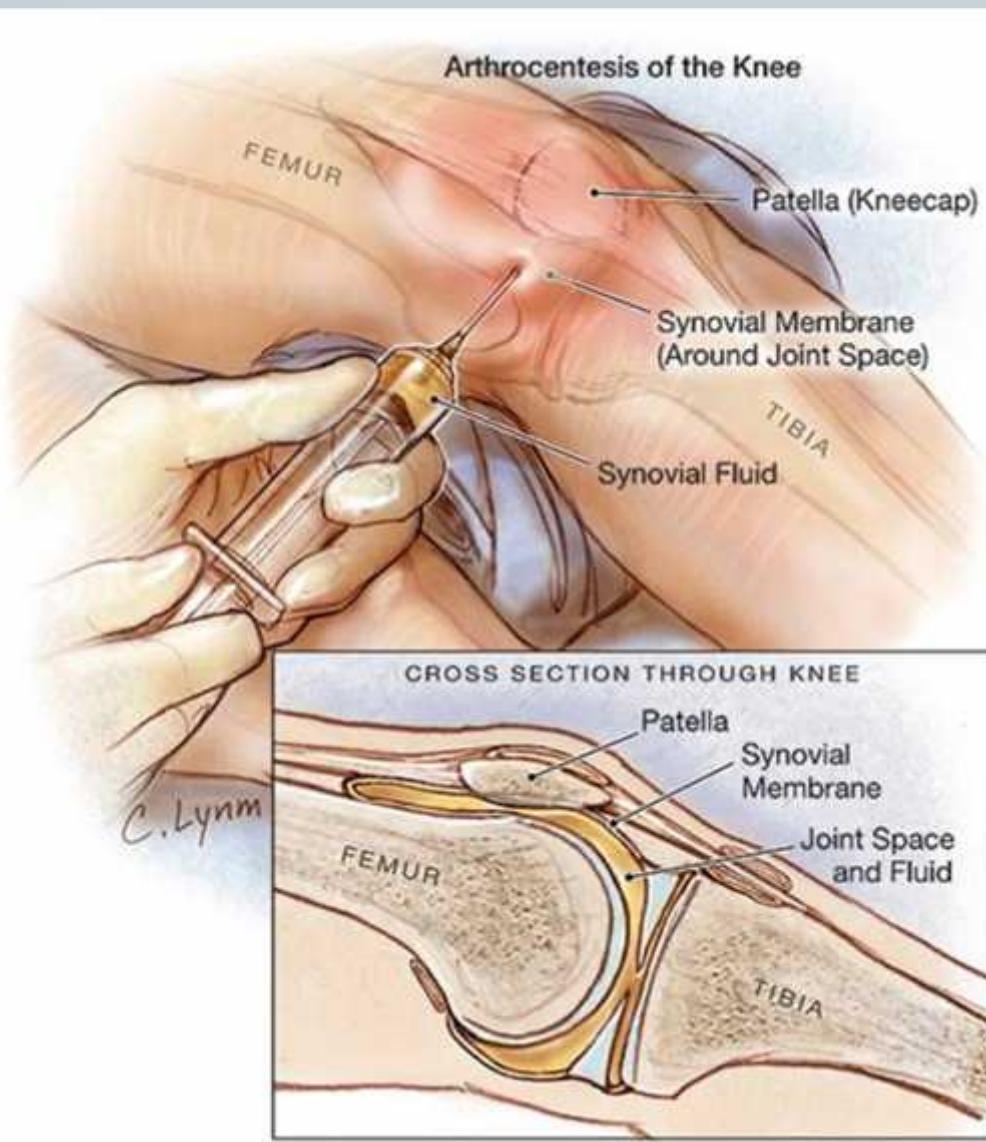


- La

## PEMERIKSAAN PENUNJANG

- X-foto → pembengkakan jaringan periarticular, penyempitan ruang sendi (pada infeksi lama)
- Arthrocentesis ( aspirasi cairan sendi keluar pus atau dilakukan analisa cairan sendi lekosit pmn jumlah > 70 %, jumlah sel > 50.000.
- Kultur kuman (darah / cairan sinovial)
- USG
- CT-scan, MRI
- Bone-scan

# ARTHROCENTESIS



# Synovial Fluid Analysis in Septic Arthritis

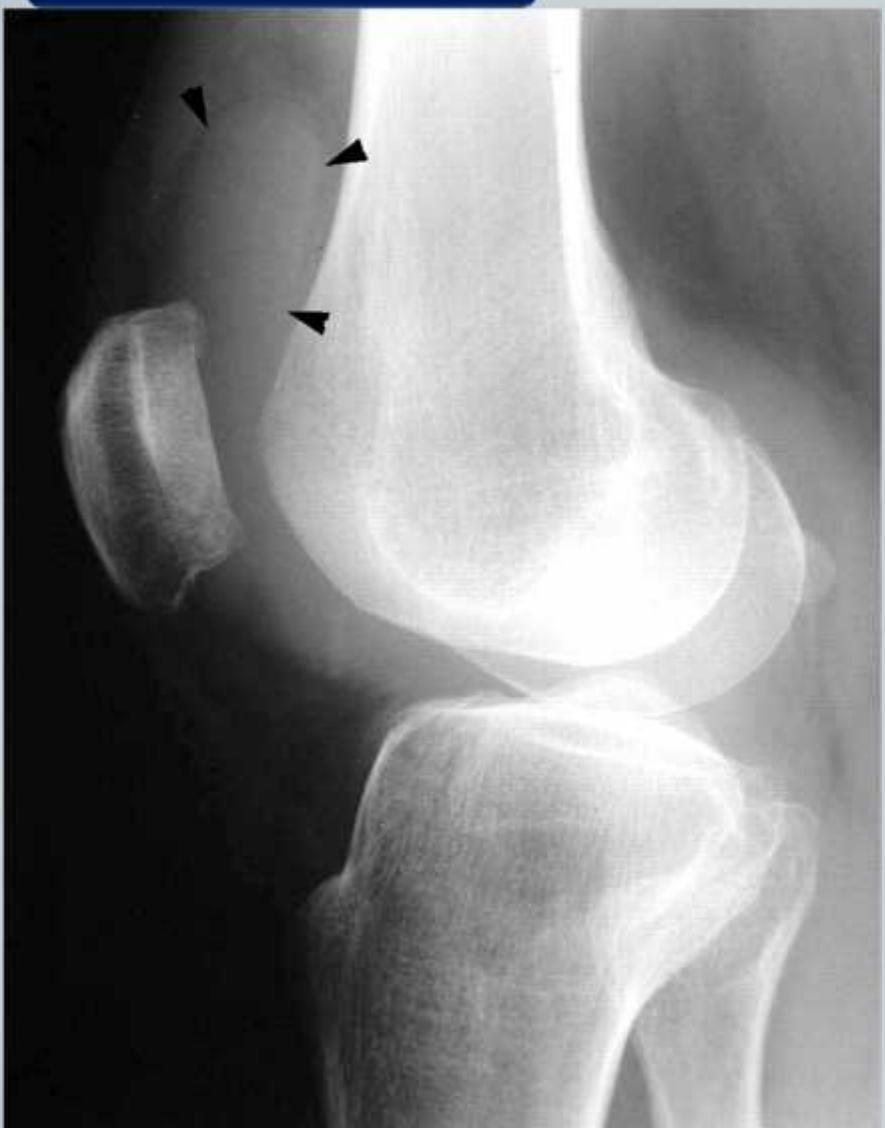
---

- Cell count: >50,000 wbc/mm<sup>3</sup>
- Differential: >75% PMNs
- Glucose: Low
- Gram stain : relatively insensitive test
- Culture: positive

---

**Always use a wide bore needle when you suspect infection, as pus may be very viscous and difficult to aspirate**

**X-FOTO**



**USG**

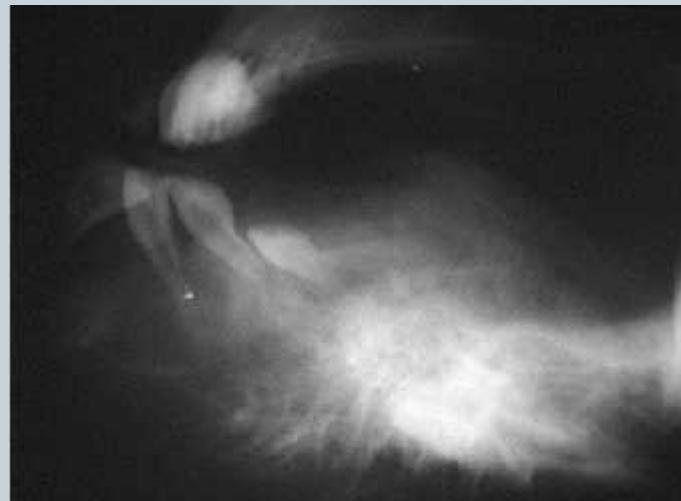


**MRI**



# Reaksi Periosteal

- Tidak terbatas pada tumor saja, tetapi infeksi seperti septik arthritis bisa memberikan gambaran ini juga



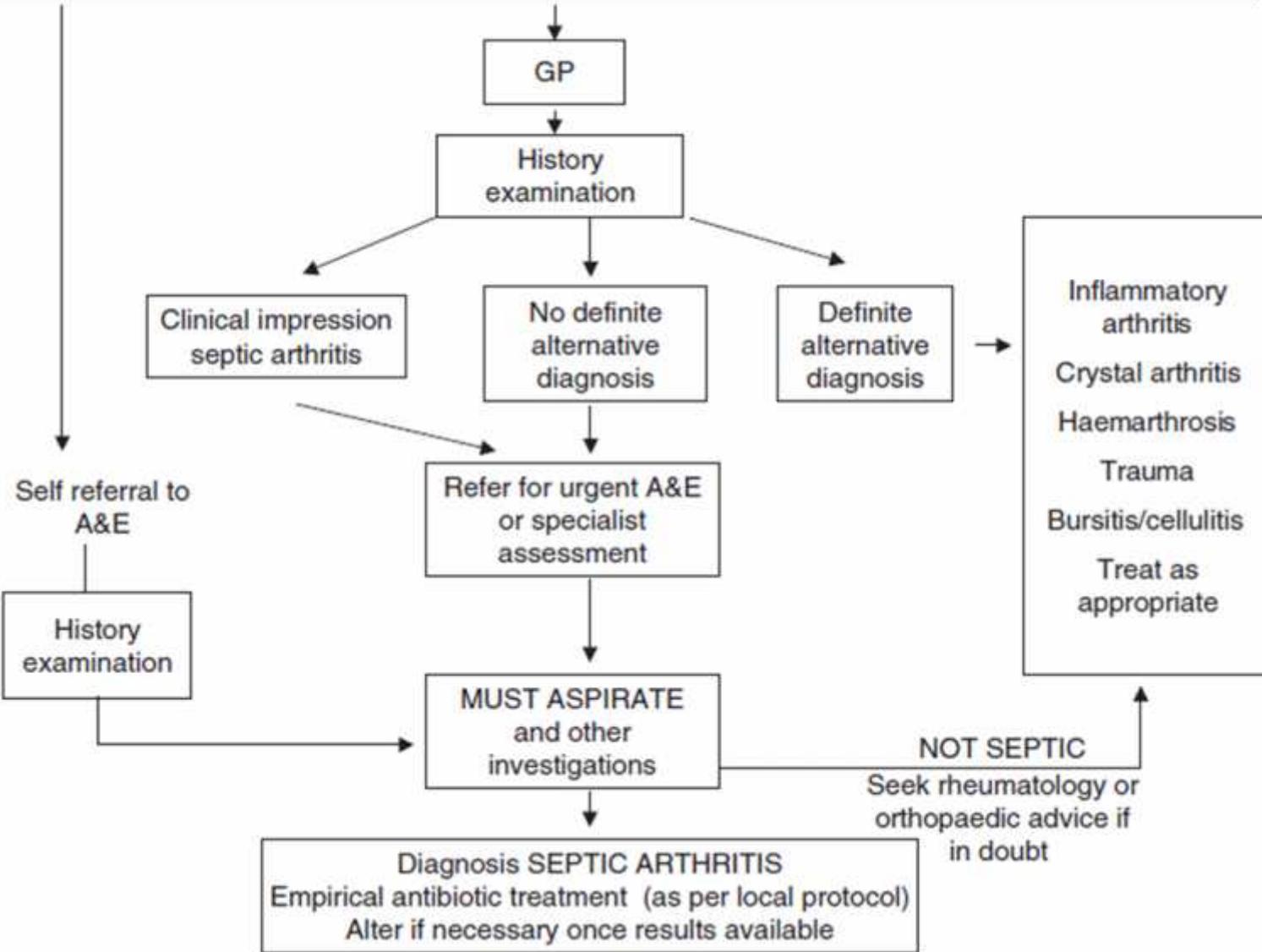
Sunburst Periosteal Reaction



- Codmans Triangle

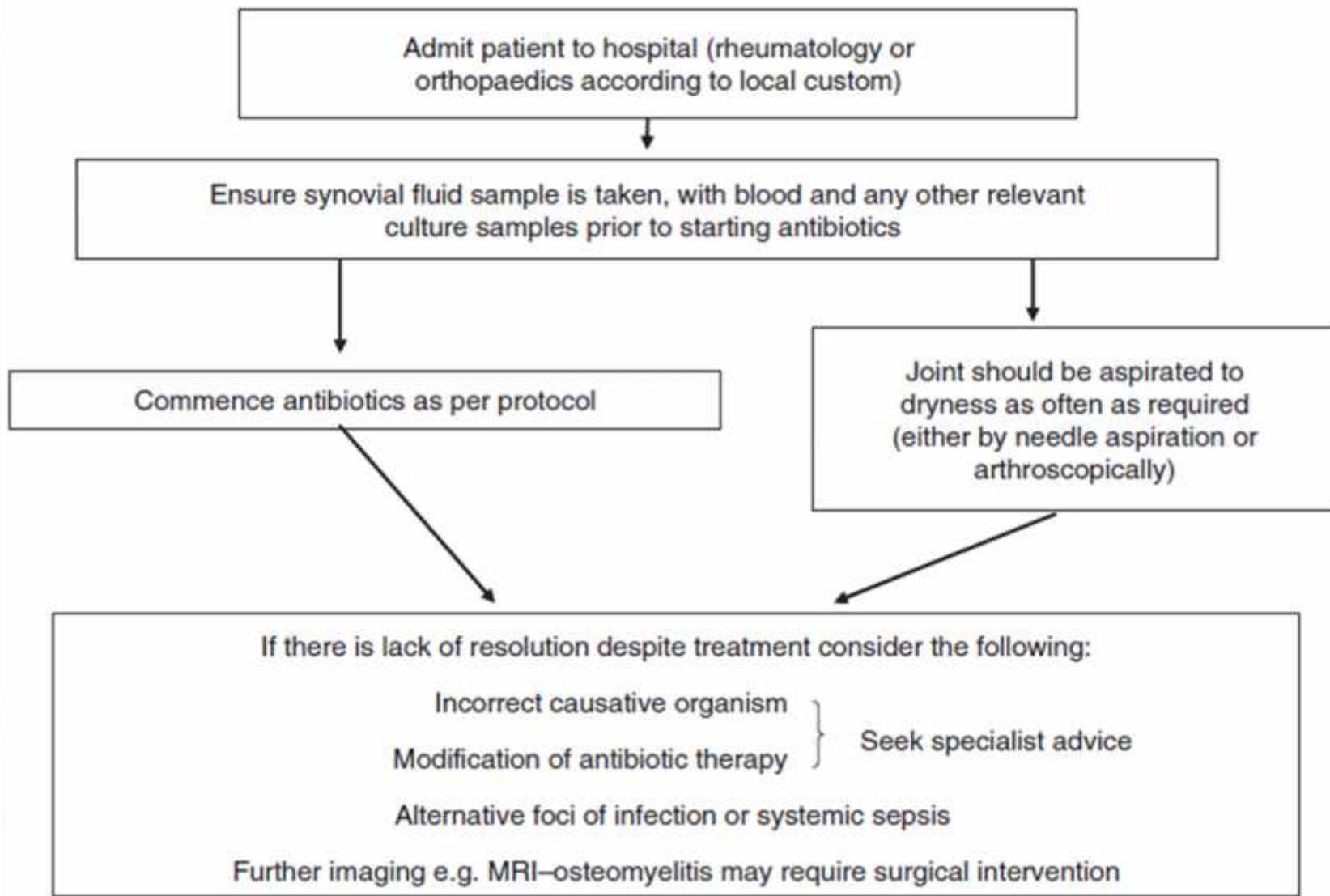
# PENATALAKSANAAN

Patient presents with acute Increase In pain ± swelling In one or more joints



# PENATALAKSANAAN

## Management of septic arthritis in secondary care



# PENATALAKSANAAN

Antibiotic choice	
No risk factors for atypical organisms	Intravenous flucloxacillin (2 g four times a day). Local policy might add oral fusidic acid (500 mg three times a day) or intravenous gentamicin If allergic to penicillin, use clindamycin (450–600 mg four times a day) or second-generation or third-generation cephalosporin
High risk of gram-negative sepsis (elderly or frail individual, recurrent urinary-tract infection, recent abdominal surgery)	Second-generation or third-generation cephalosporin (eg, cefuroxime 1.5 g three times a day). Local policy might add flucloxacillin. Discuss strategy for patients allergic to specific antibiotics with microbiologist. Gram stain could affect antibiotic choice
MRSA risk (known MRSA, recent inpatient, nursing-home resident, leg ulcers or catheters, or other risk factors)	Vancomycin plus second-generation or third-generation cephalosporin
Suspected gonococcus or meningococcus	Ceftriaxone or similar, dependent on local policy or resistance
Intravenous drug abusers	Discuss with microbiologist
Patients in intensive-care unit, known colonisation of other organs (eg, cystic fibrosis)	Discuss with microbiologist
Antibiotic choice will need to be modified after results of gram stain and culture, and should be reviewed locally by microbiology departments. MRSA=meticillin-resistant <i>Staphylococcus aureus</i> .	

Table 2: Summary of UK recommendations for initial antibiotic choice in suspected septic arthritis

## PENATALAKSANAAN

- Imobilisasi sendi dan fisioterapi
- Drainase cairan sinovial
- Pembedahan ( pada infeksi akibat prostetik )

- Pertanyaan :
- 1. apa perbedaan prinsip terapi osteomyelitis akut dan kronis.
- 2. kapan pemberian antibiotik broad spectrum pada pasien septic arthritis.
- 3. kapan pemberian antibiotik terapitik pada pasien septik arthritis.
- 4.kenapa septik arthritis menjadi emergency orthopedi.
- 5. bila kamu didaerah mendapatkan pasien klinis septik arthritis cairan dan kamu lakukan aspirasi cairan sendi keluar pus apa langkah kamu selanjutnya.



**Semangat  
Belajar !  
Terima Kasih**