

Clinical assessment^{1,2}

- Follow local & national COVID-19 isolation & testing protocols^{3,4}
- Assess need for oxygen⁵
- Assess for the presence of sepsis^{6,7}
- Confirm CXR consolidation^{5*}
- Assess CURB65 score
- Consider risk factors for unusual organisms (see box)
- Start appropriate antibiotics^{5*}

* within 4 hours presentation (CQUIN target)

CURB65 severity score Interpret with clinical judgement

- 1 point for each feature present
- Confusion (new onset AMTS < 8)
 - Urea > 7 mmol/L
 - Respiratory rate >30/min
 - Blood pressure (SBP < 90 or DBP < 60mmHg)
 - Age > 65 years

Key to flowchart



High severity

CURB65 = 3-5
Risk of death 15-40%

Admit to hospital
Arrange immediate senior review (ST4+)
Supportive care
Consider referral to intensive care unit
Is sepsis present? See sepsis IQRG
Start antimicrobials according to local guidance

Moderate severity

CURB65 = 2
Risk of death 9%

Admit to hospital
Supportive care
Start antimicrobials according to local guidance

Low severity

CURB65 = 0-1
Risk of death <3%

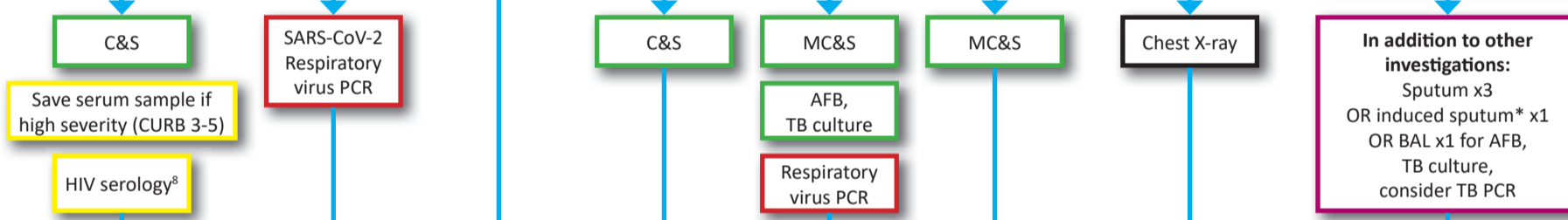
Treat as outpatient unless there is another reason for admission

No microbiological investigations required (unless outbreak situation)

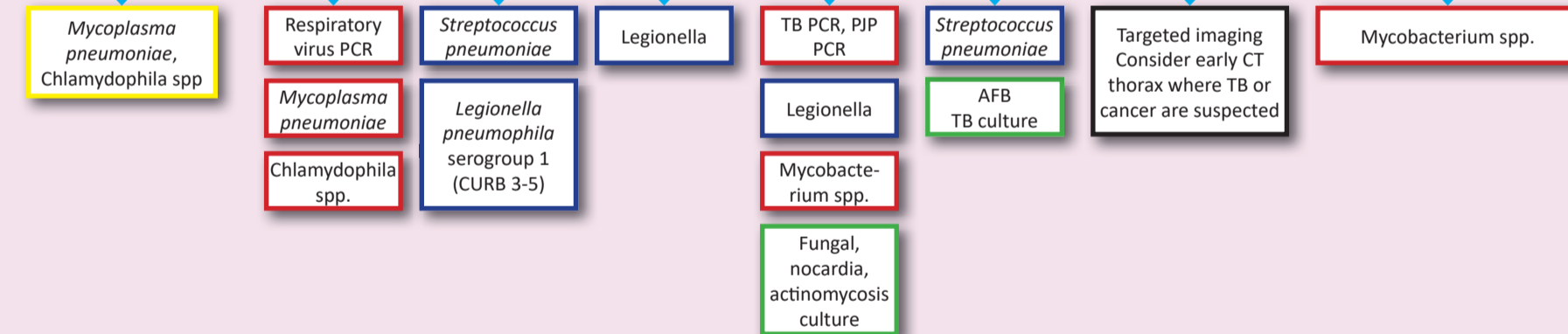
Sample type



First line tests



Second line tests Required in specific cases



Risk factors for pneumonia or unusual infecting organism

- Swallowing difficulties: aspiration pneumonia
- Diabetes, alcohol dependence: *Streptococcus pneumoniae*, *Klebsiella pneumoniae*
- Travel: drug-resistant organisms, MERS, avian influenza, Legionella, Coxiella, leptospirosis, melioidosis, endemic mycoses, Loeffler's syndrome, strongyloides
- Occupation, leisure: legionella, influenza, leptospirosis
- TB risk factors: suggestive clinical history (>2 weeks symptoms), recent migration from high incidence country, known TB contact, CXR cavitation. Consider risk of MDR TB
- Immunocompromise⁹
- Institutional residence
- IVDU, recent influenza: *Staphylococcus aureus* infection

Patient isolation precautions

- Possible and confirmed COVID-19 infection: for inpatients, follow local hospital protocols. For outpatients, follow UK health security agency (UKHSA) guidance
- Possible tuberculosis: respiratory precautions in side room
- Confirmed tuberculosis: respiratory precautions in negative pressure side room
- High consequence infection suspected (eg MERS, avian influenza): enhanced personal protective equipment in negative pressure side room*
- Recent inpatient admission in high AMR region: barrier precautions in side room

References

- NICE guidance CG191: Pneumonia in adults: diagnosis and management (2014, reviewed 2018)
- British Thoracic Society (BTS) guidance (2009)
- NICE COVID-19 rapid guideline: managing COVID-19: <https://www.nice.org.uk/guidance/ng191/resources/covid19-rapid-guideline-managing-covid19-pdf-5103555326>
- UK health security agency (UKHSA) guidance: <https://www.gov.uk/government/collections/coronavirus-covid-19-list-of-guidance>
- Pneumonia CQUIN 2022: <https://www.england.nhs.uk/wp-content/uploads/2022/01/B1477i-cquin-22-23-march-2022.pdf>
- <https://sepsistrust.org/professional-resources/clinical/>
- <https://www.nice.org.uk/guidance/NG51>
- <https://www.bhiva.org/file/5f68c0dd7aefb/HIV-testing-guidelines-2020.pdf>
- <https://www.bhiva.org/OI-guidelines>

Abbreviations

MC&S	microscopy, culture and sensitivity
PCR	polymerase chain reaction
SARS-CoV2	Severe acute respiratory syndrome coronavirus 2
MERS	Middle Eastern Respiratory Syndrome
TB	tuberculosis
Sp	species
CT	computerised tomography
PJP	pneumocystis jiroveci