

CAP Update

Discover why:

- Empiric atypical coverage is not routine
- Ceftriaxone 1g is sufficient
- 5 days of antibiotic treatment is adequate

New

ASPIRES

Regional Medical Director

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Vancouver General Hospital

Dr. Peermohamed obtained his MD degree from the University of Calgary, trained in Internal Medicine at the University of Saskatchewan and completed his subspecialty training in Infectious Diseases at the University of Toronto. He also brings with him a wealth of knowledge in public health, having completed his Master of Public Health through the Harvard T.H. Chan School of Public Health, focusing on clinical effectiveness. Building on his outstanding teaching awards and honours list, Dr. Peermohamed is also completing his Clinical Educator Diploma through the Royal College of Physicians and Surgeons of Canada.

Welcome



Firstline

CLINICAL DECISION SUPPORT
PLATFORM

FIRSTLINE.ORG/VCH

Vancouver
CoastalHealth

ASPIRES
smart prescribing

Smart antibiotic prescribing at your fingertips

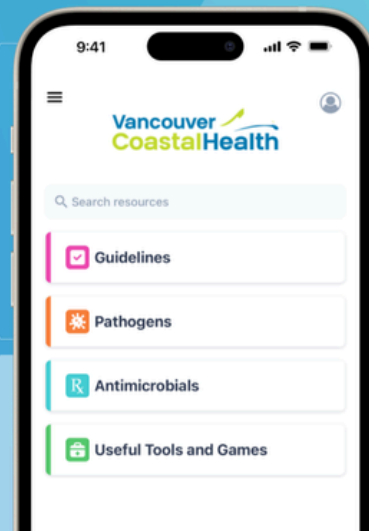
Save time and easily access best practices for prescribing antibiotics to help keep our community healthy and safe with the Firstline app.

Download
and use the
Firstline app



Get fast access to our local infectious disease guidance and antimicrobial dosing information at the point of care.

- 1 Download Firstline on **mobile** or access on the **web**
- 2 Click 'Select Location' and choose **Vancouver Coastal Health**
- 3 Instantly access local, tailored guidance to optimize patient outcomes



No routine

Atypical Coverage

for non-severe CAP (i.e. CRB-65 score of 0-2)

M. pneumoniae
C. pneumoniae

} Usually self-resolving

Suspect ***Legionella*** if:



- exposure to contaminated water sources (hot tubs, plumbing systems)
- fever with relative bradycardia
- confusion, altered mental status
- GI symptoms (N/V/D), abdo pain



Image caption: Right lower lobe consolidation with severe legionella pneumonia

" In Canada, there are generally less than 100 cases of Legionnaires' disease reported annually "

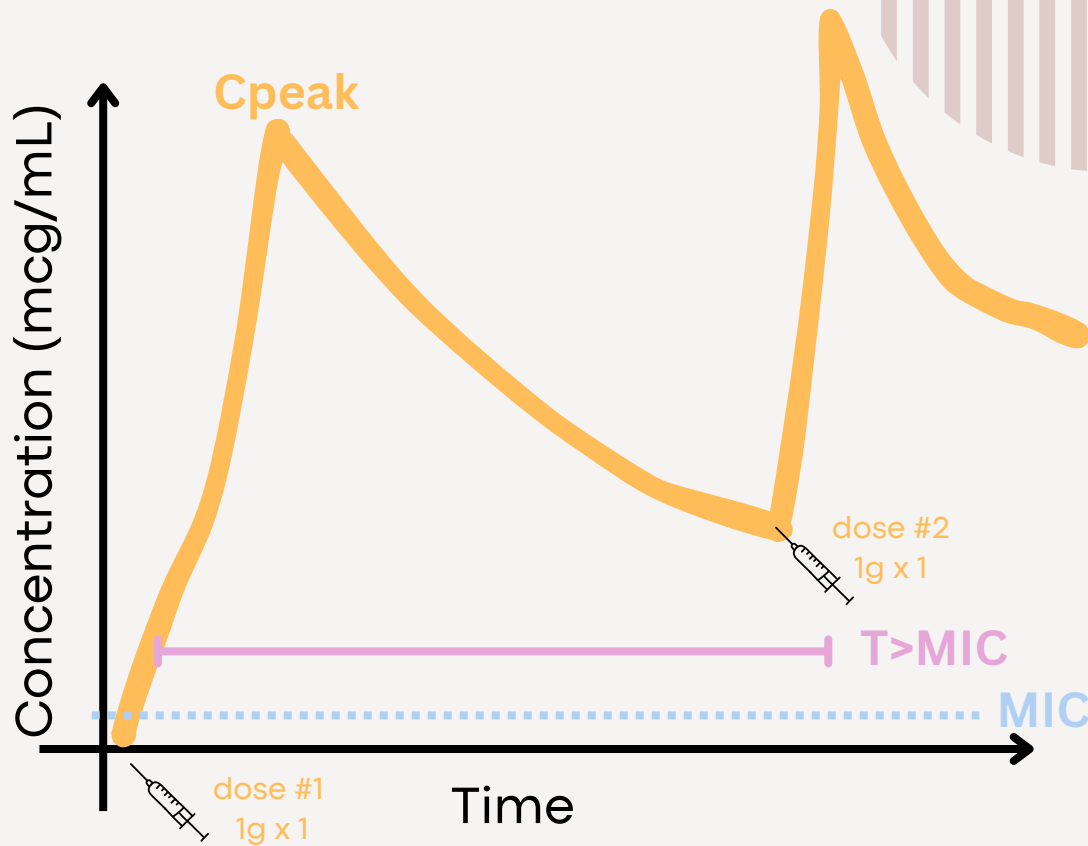
- Public Health Agency of Canada. 2019

Beta-lactam monotherapy is **non-inferior** to combo therapy for **90-day mortality** in non-severe CAP.

See 2015 CAP-START trial for more details.

N Engl J Med. 2015;372:1312

Ceftriaxone 1g



- At VCH, the mean MIC for *S. pneumoniae* (the most common CAP pathogen) is **0.09 mcg/mL**
- Ceftriaxone is a time-dependent killer, and must achieve adequate fraction of **time above MIC**
- 1g IV daily will achieve serum concentration of **~136 mcg/mL**

Ceftriaxone 1g IV daily achieves **100%** fraction of time above MIC of *S. pneumoniae* and is **non-inferior** to 2g for **curing** non-severe CAP.

BMC Infect Dis. 2019; 19: 1079

“Treat non-ICU CAP for 3-5 days”

said IDSA, PACE and the 2021 PTC Trial



- Double blinded, non-inferiority RCT
- 303 hospitalized non-ICU patient
- Median age 73, CRB-65 0~3
- Excluded: abscess, pleural effusion, immunosuppression, suspected/confirmed legionellosis

Discontinuing β -lactam treatment after 3 days was non-inferior to 8 days of treatment for achieving clinical cure 15 days post-antibiotics

Lancet. 2021 Mar 27;397(10280):1195-1203

DAY

3

+

NO

afebrile,
clinical instabilities



reasonable
to

DAY

5

+

≤1

afebrile,
clinical instabilities



STOP

Clinical instabilities:

SBP <90, HR >100, RR >24,

O2sat <90% on room air or baseline home oxygen.