Ferrara 28 novembre 2014

LINEE GUIDA: VALORI E LIMITI

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EVIDENCE "BIASED" GERIATRIC MEDICINE

Older patients with comorbid conditions are frequently excluded from clinical trials, and evidence coming from these studies is only partly applicable to this population.

This bias also affects clinical practice guidelines that are based on evidence coming from randomized trials and meta-analyses.

Guidelines are generally disease-focused, thus raising the difficulties for applying them in older patients with comorbid conditions.

Indeed, a guideline-driven therapeutic approach in such patients often results in adverse drug-drug or drug-disease interactions in the presence of complex polypharmacy regimens.

T. Avni et al, Participation of elderly patients in randomized controlled trials addressing antibiotic treatment of pneumonia. J Am Geriatr Soc 2014; in press.

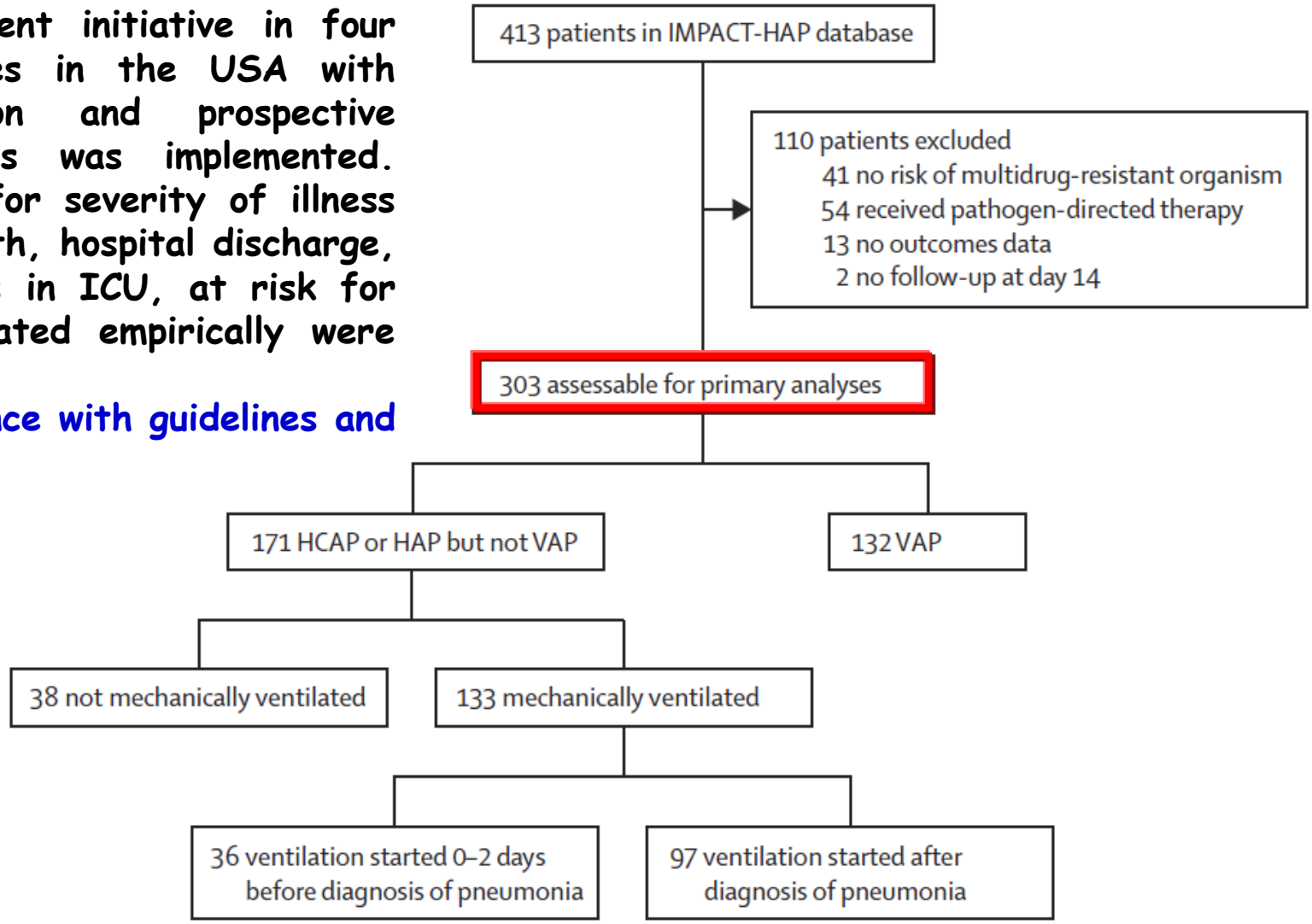
Antimicrobial trials including older complex patients are urgently needed

Implementation of guidelines for management of possible multidrug-resistant pneumonia in intensive care: an observational, multicentre cohort study

Kett DH et al, Lancet Infect Dis 2011; 11: 181–89

A performance-improvement initiative in four academic medical centres in the USA with protocol-based education and prospective observation of outcomes was implemented. Patients were assessed for severity of illness and followed up until death, hospital discharge, or day 28; 303 Patients in ICU, at risk for MDR pneumonia and treated empirically were included.

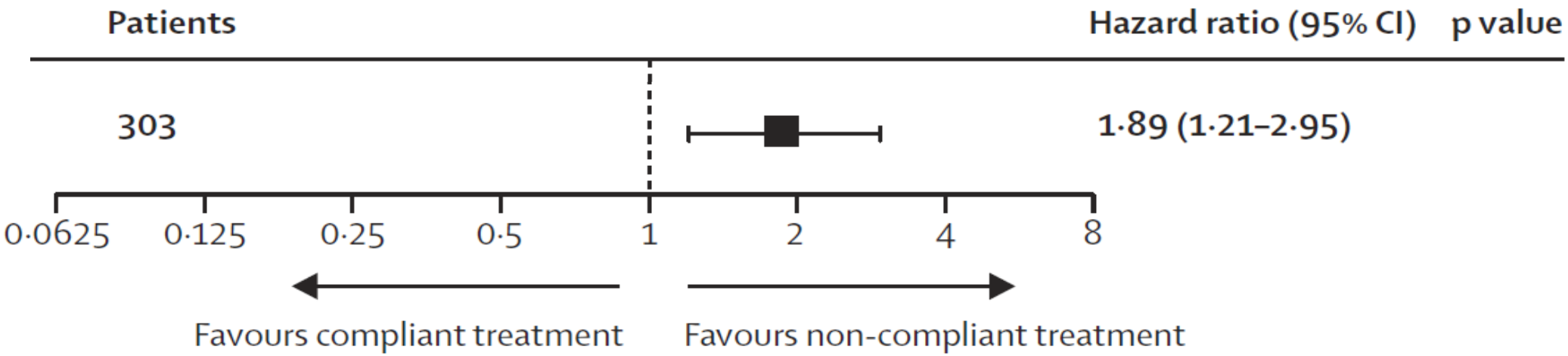
Aims: to improve compliance with guidelines and to assess outcomes



Implementation of guidelines for management of possible multidrug-resistant pneumonia in intensive care: an observational, multicentre cohort study

Kett DH et al, Lancet Infect Dis 2011; 11: 181-89

Guideline-compliant empirical treatment outcomes for 28-day mortality



Reasons for non-compliance were failure to use a secondary anti-Gram-negative drug –mainly AG - (154 patients) or, less commonly, failure to use either a primary anti-Gram negative drug (24 patients) or anti-MRSA drug (24 patients).

Clinical Practice Guidelines for the Management of Candidiasis: 2009 Update by the Infectious Diseases Society of America

Pappas PG et al Clin Infect Dis 2009; 48:503–35

EMPIRICAL / PRESUMPTIVE TREATMENT

From FLUCONAZOLE to ECHINOCANDINs for 1st line both for empirical and targeted treatment

ESCMID Diagnostic & Management Guideline for Candida Diseases 2011

Cornerly O et al, Clin Microbiol Infect 2012; 18 (Suppl. 7): 19–37

Optimal Antibiotic Therapy for MRSA Bacteremia

Although guidelines recommend targeting vancomycin trough levels of 15-20 mg/L to treat serious infections due to MRSA, the relationship of these higher vancomycin trough levels to the outcome of patients with MRSA bacteremia is unclear.

Several recent observational cohort studies have suggested that daptomycin might be preferred over vancomycin to treat MRSA bacteremia due to high vancomycin minimum inhibitory concentration.

Randomized trials are needed.

Optimal Antibiotic Therapy for MRSA Bacteremia

Teicoplanin represents another potential alternative to vancomycin.

The addition of gentamicin, rifampin, or both to vancomycin for treating MRSA bacteremia and native valve infective endocarditis offers no meaningful benefit and may confer harm.

Adding a β-lactam antibiotic to vancomycin or daptomycin to treat MRSA bacteremia is of unproven benefit.

Low-quality evidence suggests that linezolid, trimethoprim-sulfamethoxazole, dalbavancin, ceftaroline, and telavancin may be useful for patientswhohave not responded to first-line therapy.

Tigecycline should be avoided.

Echocardiography

All patients with *S aureus* bacteremia should undergo echocardiography.

Although transesophageal echocardiography is preferred when feasible, there may be identifiable low-risk patients in whom transesophageal echocardiographyiis not required.

This low-risk subset could be conservatively defined as patients meeting all of the following criteria:

(1) Nosocomial acquisition of bacteremia,
(2) sterile follow-up blood cultures within 4 days after the initial set
(3) absence of permanent intracardiac/intravascular device,1
(4) absence of hemodialysis dependence
(5) no clinical signs of infective endocarditis or secondary foci of infection

Impact of infectious diseases service consultation on diagnosis of infective endocarditis. *Yamamoto S et al Scand J Infect Dis 2012;44:270-5*

Routine consultation with an ID service for cases of positive blood culture was implemented at Kameda Medical Center in November 2004. In addition, ID service doctors started to give lectures on ID to doctors and also provided local guidelines on ID

incidence of IE
BEFORE 48.7 per 100,000 patients discharged from the hospital
AFTER 84.8 per 100,000 patients (p = 0.01).

Relapse rate of IE within 6 months
BEFORE 22,2%
AFTER 2,2% (p = 0.02).

European Society of Clinical Microbiology and Infectious Diseases update of the treatment guidance document for C.difficile infection

Debast SB, et al, Clin Microbiol Infect. 2013 Oct 5.

First recurrence or risk for recurrent disease

Oral antibiotic treatment

Fidaxomicin po 200 mg bid for 10 days (B-I)

Vancomycin po 125 mg qid 10 days (B-I)

Metronidazole po 500 mg tid 10 days (C-I)

European Society of Clinical Microbiology and Infectious Diseases update of the treatment guidance document for C.difficile infection

Debast SB, et al, Clin Microbiol Infect. 2013 Oct 5.

Multiple recurrences (>1)

Oral antibiotic treatment

Fidaxomicin po 200 mg bid for 10 - 14 days (B-II)

Vancomycin po 125 mg qid 2 weeks + pulse for 4 weeks (B-II)

or

Vancomycin po 125 mg qid 2 weeks + taper to 125 mg/2-3 days for 2-8 weeks (B-II)

European Society of Clinical Microbiology and Infectious Diseases update of the treatment guidance document for C.difficile infection

Debast SB, et al, Clin Microbiol Infect. 2013 Oct 5.

Severe CDI

Oral antibiotic treatment

Vancomycin po 125 mg qid 10 days (A-I)

Fidaxomicin po 200 mg bid 10 days (B-I)

European Society of Clinical Microbiology and Infectious Diseases update of the treatment guidance document for C.difficile infection

Debast SB, et al, Clin Microbiol Infect. 2013 Oct 5.

Initial CDI: non-severe disease

Non-antibiotic treatment

Stop the inducing antibiotic and observe the clinical response for 48 hours, (C-II)

Oral antibiotic treatment

Metronidazole po 500 mg tid 10 days (A-I)

Vancomycin po 125 mg qid 10 days (B-I)

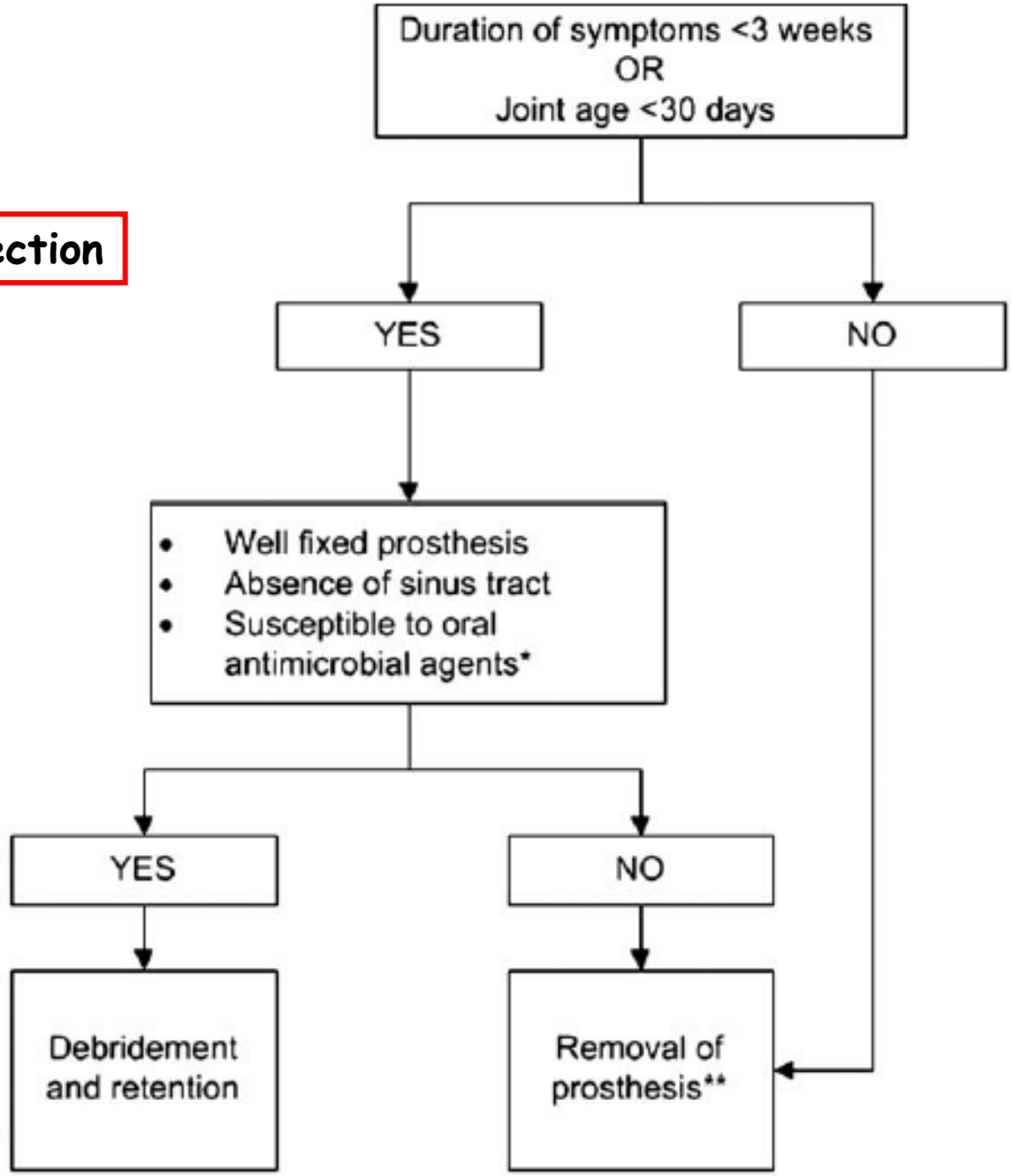
Fidaxomicin po 200 mg bid 10 days (B-I)

Clinical Infectious Diseases Advance Access published December 6, 2012

IDSA GUIDELINES

Diagnosis and Management of Prosthetic Joint Infection: Clinical Practice Guidelines by the Infectious Diseases Society of America[a]

Management of prosthetic joint infection



What is the medical treatment for a patient with PJI following debridement and retention of the prosthesis?

Staphylococcal PJI

Two to 6 weeks of a pathogen-specific intravenous antimicrobial therapy (Table 2) in combination with rifampin 300–450 mg orally twice daily followed by rifampin plus a companion oral drug for a total of 3 months for a THA infection and 6 months for a total knee arthroplasty (TKA) infection (A-I).

ESCMID guidelines for the management of the infection control measures to reduce transmission of multidrug-resistant Gram-negative bacteria in hospitalized patients

Clin Microbiol Infect. 2014 Jan;20 Suppl 1:1-55.

Multifaceted approaches

- Hand hygiene
- Physical separation of patients
- Education
- Detection/surveillance
- Environmental cleaning
- Cohort patients' and staff

- Antimicrobial stewardship