

ADEFOVIR DIPIVOXIL FOR CHRONIC HEPATITIS B

A double-blind, placebo-controlled study evaluated the effects of 10-mg and 30-mg doses of adefovir dipivoxil in patients with hepatitis B e antigen (HBeAg)-positive chronic hepatitis B. Patients (N = 515) were randomly assigned to receive 10 mg of adefovir dipivoxil, 30 mg of adefovir dipivoxil, or placebo daily for 48 weeks. The primary end point was histologic improvement, defined as a reduction of at least 2 points in the Knodell necroinflammatory score with no concurrent worsening of the Knodell fibrosis score 48 weeks after base line. Significantly more patients who received 10 mg or 30 mg of adefovir dipivoxil had histologic improvement than did those who received placebo (53%, 59%, and 25%, respectively; $P < .001$). Patients in the 10-mg adefovir dipivoxil group had a median reduction in the Knodell necroinflammatory score of 2 points, and those in the 30-mg adefovir dipivoxil group had a median reduction of 3 points, compared with no change in the placebo group ($P < .001$). Both adefovir dipivoxil groups also showed reduction in serum hepatitis B virus (HBV) DNA levels, normalization of alanine aminotransferase levels, and HBeAg seroconversion. No adefovir-associated resistance mutations were identified in the HBV DNA polymerase gene. Researchers concluded that in patients with HBeAg-positive chronic hepatitis B, 48 weeks of treatment with adefovir dipivoxil resulted in histologic liver improvement, reduced serum HBV DNA and alanine aminotransferase levels, and increased rates of HBeAg seroconversion. The favorable resistance profile of adefovir dipivoxil is an advantage for patients undergoing long-term therapy.

Marcellin P, Chang TT, Lim SG, et al. Adefovir dipivoxil for the treatment of hepatitis B e antigen–positive chronic hepatitis B. *N Engl J Med* 2003;348:808–16.

CLINICAL PREDICTION RULES FOR STREPTOCOCCAL PHARYNGITIS

A prospective study was conducted to evaluate the diagnostic accuracy of a simplified version of the Walsh clinical prediction rules (CPRs) for the presence of streptococcal pharyngitis in an ethnically diverse, inner-city population. From January 1, 1997, to May 31, 1997, 171 consecutive adult walk-in patients at an inner-city primary care clinic who had symptoms of upper respiratory tract infection and/or sore throat were enrolled in the study. All patients were assessed using the following 5 clinical predictors: cough, exposure to known streptococcal contact, temperature, tonsillar-pharyngeal exudates, and cervical lymphadenopathy. Throat cultures for group A β -hemolytic streptococcus (GABHS) were obtained from all patients. The prevalence of streptococcal pharyngitis in the study population was

24% (95% confidence interval). Both the original Walsh CPRs and the simplified version (developed by modifying the original sore throat scoring system) predicted accurately the probability of a positive culture for GABHS. The receiver operating characteristic (ROC) curves and areas under the ROC curves of the original and simplified scoring systems were similar. The simplified CPRs also showed clinically useful likelihood ratios and posterior probabilities. The authors concluded that a simplified version of the Walsh CPRs is accurate for diagnosing streptococcal pharyngitis in an inner-city population, a finding that should give clinicians confidence in applying simplified CPRs in similar clinical settings.

McGinn TG, Deluca J, Ahlawat SK, et al. Validation and modification of streptococcal pharyngitis clinical prediction rules. *Mayo Clin Proc* 2003;78:289–93.

CONTAMINATION RATES OF BLOOD CULTURES

A preintervention and postintervention observational study was conducted to compare contamination rates of blood culture specimens obtained from separate sites and from newly inserted intravenous catheters. From January 1998 through December 1999, blood culture specimens were obtained as part of routine care from patients age 18 years or younger who were seen at a US children's hospital emergency department. During the baseline phase of the study, culture specimens were obtained through newly inserted peripheral intravenous catheters. During the postintervention phase, culture specimens were obtained by venipuncture at a dedicated site. The primary outcome measure was the contamination rate in the postintervention period compared with that in the baseline period. A total of 4108 blood cultures were evaluated (2108 in the baseline phase, 2000 in the postintervention phase). The false-positive blood culture rate decreased in the postintervention (from the baseline) period from 9.1% to 2.8% ($P < .001$). Young age was associated with an increased contamination rate in both the baseline and postintervention periods. Results showed contamination rates to be significantly lower when blood culture specimens were drawn from separate and dedicated venipuncture sites than from a newly inserted intravenous catheter.

Norberg A, Christopher NC, Ramundo ML, et al. Contamination rates of blood cultures obtained by dedicated phlebotomy vs intravenous catheter. *JAMA* 2003;289:726–9.

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