

Emergency Department versus Office Setting and Physician/Patient Kinship Effects in the Diagnostic and Therapeutic Choices of Febrile Children at Risk For Occult Bacteremia

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Background: Given the controversy of selecting a diagnostic and treatment approach for the febrile child at risk for occult bacteremia, the purpose of this study is to survey the diagnostic and treatment strategies chosen by pediatricians for a febrile child at risk for occult bacteremia seen in three different settings (private office, emergency department, their own child) to see if any differences exist.

Study Design: Survey of pediatricians given a case scenario of a febrile female child without a source of the fever presenting in three different clinical settings: 1) Office. 2) Emergency Department (E.D.). 3) Pediatrician's daughter.

Results: 138 pediatrician surveys were tabulated. Pediatricians ordered the most tests and empiric antibiotic treatments in the E.D., the fewest tests and empiric antibiotic treatments on their daughter, and intermediate frequency of tests and empiric antibiotic treatments in the office. Roughly half the pediatricians ordered the same level of tests in all three clinical settings, while the other half varied their test ordering in the different clinical settings.

Conclusion: The clinical setting has an effect on the diagnostic and treatment strategies chosen when evaluating a febrile child at risk for occult bacteremia with patients seen in the E.D. receiving more laboratory tests and antibiotic treatment compared to office patients. Kinship also has an effect, with a child (daughter in this instance) of a pediatrician receiving the fewest laboratory tests and antibiotic treatment.

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Introduction

The evaluation of young febrile children (3 months to 3 years of age) at risk for bacteremia is a recognized controversy.^{1,2,3,4,5} Actual patient data supporting a single standardized diagnostic evaluation and treatment approach is lacking. Most of the controversy stems from a subjective sense of risk tolerance.

Risk averse strategies recommend blood cultures and parenteral antibiotics for most or all children at risk for occult bacteremia.^{1,2} Observation alone is recommended when prudent risk is accepted.³ Other strategies employ white blood counts to assist in the decision to administer antibiotics.^{4,5,6,7} If antibiotics are to be administered, the decision of parenteral or oral antibiotics must be made on similar risk tolerance criteria.^{6,7,8,9,10}

Baraff, et al, have published practice guidelines for the evaluation and treatment of children at risk for occult bacteremia regardless of the practice setting.^{4,5} However, published surveys of pediatricians demonstrate that there is substantial diversity in the management of these children and many pediatricians do not follow the recommendations of the published guidelines.^{11,12} In a focus group survey of parents given the choice of blood culture+empiric antibiotics versus fingerstick WBC (then blood culture+empiric antibiotics only if WBC elevated), most parents chose the WBC strategy¹³ (more risky). Furthermore, while physicians may assume that patients generally want more tests and more treatment in order to avoid as much risk as possible, a published survey of parents showed that parents often preferred the opposite of this (fewer tests, less treatment, more risk) in a hypothetical case scenario involving a 6-week old febrile infant.¹³

Given this lack of uniformity, the purpose of this study is to survey the diagnostic and treatment strategies chosen by pediatricians, for a child at risk for occult bacteremia in three different settings (private office, emergency department, their own child). The hypothesis of this study is that patients in the E.D. receive more aggressive testing and treatment compared to other patients, regardless of whether the physician is a general pediatrician, emergency pediatrician, or other pediatric subspecialist.

Methods

Pediatricians* from a single county were approached (convenience sample of the pediatric medical staff of the only children's

*military physicians and Kaiser physicians were excluded.

hospital in the county) and asked to voluntarily participate in a survey by completing a four page form. Some pediatricians were surveyed by mail. The first page of this form is shown in appendix A. The survey narrative describes a 14 month old female presenting at 3:00 p.m. with a fever (temperature 39.4 degrees) for eight hours without a source who is active, alert, not toxic, and not irritable, without a focus of infection. Pediatricians were asked to select from among several diagnostic, antipyretic, and antibiotic alternatives. Diagnostic choices included combinations of: observation, CBC (complete blood count), BC (blood culture), BC only if WBC (white blood count) elevated, and urine studies. Erythrocyte sedimentation rate, chest x-ray, and lumbar puncture were not included in the choices. Antibiotic treatment choices included: no antibiotics, empiric antibiotics, and empiric antibiotics only if the WBC is elevated. Pediatricians were also given the option of referring to an emergency department or hospital inpatient unit.

The same child with the same clinical history and examination findings was presented in three clinical settings. The first case setting is an office visit on a Tuesday (a typical office day). Pediatricians were informed that this was one of their private patients whose patient profile was that of their practice's average patient with their practice's average parents. The second case setting is an emergency department visit on a Saturday (one of highest ED census days). Pediatricians were informed that they were the emergency physician on duty in the emergency department and this is a patient that they are meeting for the first time (i.e., not one of their private patients). They were to assume that from their limited contact with this family in the E.D., this E.D. patient's profile is similar to their practice's average patient with their practice's average parents. The third case is their own daughter. Surveyed pediatricians were not allowed to call another pediatrician for advice since the purpose of this survey was to survey THEIR opinion and not the opinion of someone else.

The office visit scenario and the E.D. visit scenario differed in the day of the week because this is the most likely scenario. Office patients generally present during standard office hours, while E.D. patients most often present during non-office hours.

The fourth page of the survey consisted of demographic information profiling the pediatrician. Physicians were NOT informed of the purpose of the survey until after they had completed it.

During the study period, most of the pediatricians were surveyed in the hospital in person. For those who were not surveyed in person during this period, the surveys were mailed to them and voluntarily completed and returned.

Data were keyed into a computerized data base program and analyzed using crosstabulation (frequencies and Chi-square) statistics. A probability value of less than 0.05 was used to determine statistical significance.

Since no patients were involved in this survey, institutional review board approval was not sought.

Results

Table 1 tabulates the survey responses in the three different clinical settings (E.D., office, and daughter). Laboratory tests (68%, 32%, 22%) and antibiotics (51%, 20%, 15%) were ordered the most frequently in the E.D., intermediate frequency in the office, and the least frequently on the daughter, respectively ($p < 0.001$). Anti-

Table 1.—Pediatrician diagnostic and treatment strategy options selections in three different settings

	E.D.	Office	Daughter
Diagnostic options (may choose more than one):			
Home Observation	138 (100%)	138 (100%)	137 (99%)
Administer acetaminophen and reassess	61 (44%)	46 (33%)	59 (43%)
CBC	86 (62%)	33 (24%)	23 (17%)
Blood culture	55 (40%)	16 (12%)	14 (10%)
Blood culture only if WBC elevated	23 (17%)	8 (6%)	6 (4%)
Bag urine specimen studies	18 (13%)	17 (12%)	12 (9%)
Catheterized urine specimen studies	44 (32%)	14 (10%)	6 (4%)
Refer to E.D. for further evaluation	0	0	1 (1%)
Admit to hospital inpatient unit	0	0	0
Antibiotic strategy option (choose one only):			
No antibiotics	68 (49%)	111 (80%)	117 (85%)
Antibiotics if WBC > 15,000	41 (30%)	15 (11%)	13 (9%)
Antibiotics if WBC > 20,000	22 (16%)	9 (7%)	4 (3%)
Antibiotics regardless of WBC result	6 (4%)	2 (1%)	3 (2%)
Other ("depends on differential")	1 (1%)	1 (1%)	1 (1%)
Antibiotic selection option (choose one only):			
Oral antibiotics (any one)	12 (17%*)	12 (44%*)	9 (43%*)
IM ceftriaxone plus oral antibiotics (any one)	57 (81%*)	14 (52%*)	11 (52%*)
Daily IM ceftriaxone for at least 3 days.	1 (1%*)	1 (4%*)	1 (5%*)
*percentage uses denominator excluding "no antibiotics" strategy			

pyretic treatment did not differ significantly among the three clinical settings. In instances when antibiotics were ordered, parenteral antibiotics were most likely to be ordered in the E.D. setting compared to the office and daughter settings (82%, 56%, 57%, respectively) ($p < 0.02$).

Table 2 categorizes the responses in table 1 and stratifies these frequencies among the three different clinical settings by several pediatrician profile variables.

Residents included first, second, and third year pediatric resi-

Table 2.—Pediatrician diagnostic treatment choices in three different settings (row percentages)

	ED				Office			Daughter		
	Total (n)	No Tests (%)	Urine only (%)	Blood ± UR (%)	No Tests (%)	Urine only (%)	Blood ± UR (%)	No Tests (%)	Urine only (%)	Blood ± UR (%)
All	138	32	42	25	68	16	16	78	9	12
Survey group										
Pediatricians	111	33	41	25	73	13	14	81	9	10
Residents	27	30	48	22	48	33	19	67	11	18
Board certification										
Not board certified	35	26	51	23	54	29	17	71	11	15
Board certified pediatricians	103	35	39	26	73	12	16	81	9	11
Board certified subspc.	18	33	6	61	67	22	11	78	11	11
Medicaid percentage of practice										
< 10%	31	35	42	23	74	16	10	84	10	6
10% to 25%	33	30	42	28	73	12	15	79	12	9
26% to 50%	15	27	40	33	60	13	27	67	20	13
> 50%	48	31	46	23	65	19	16	79	6	14
Not applicable	11	45	27	27	64	18	18	89	0	11
Pediatrician's age										
< 32	24	25	54	13	58	29	12	71	8	17
32 - 39	39	41	41	18	67	15	18	80	10	10
40 - 49	34	24	47	29	68	15	18	77	12	12
≥ 50	40	38	30	33	75	10	13	83	8	10

dents, combined medicine/pediatrics residents, and a fourth year chief pediatric resident. Most of those who were not board certified in pediatrics were pediatric housestaff or young physicians who were board eligible in pediatrics but who had not yet taken the board exam or had taken the board exam, but were awaiting notification of their results.

Table 2 shows a greater frequency of laboratory testing in the E.D. setting and the least testing on the daughter; however these frequencies did not differ significantly by pediatrician profile characteristics (board certification, medicaid percentage of practice, practice type, pediatrician's age [one pediatrician did not give an age], sex, and family profile).

Table 3 categorizes the diagnostic choices and rank orders them among the three different settings; emergency department (ED), office (Ofc), and daughter (Dtr). The rank order categories included are: ED=Ofc=Dtr (the diagnostic options selected by the pediatrician are the same for all three office settings), ED>Ofc>Dtr (ED has more tests than the office which has more than or the same tests as the daughter), ED=Ofc>Dtr (options selected are the same for office and ED which have more tests than the daughter), Other (any other rank order). To determine this rank order, we simplified the rank from lowest to highest as: no tests, urine studies only, blood studies only, urine and blood studies.

Roughly half of the pediatricians selected the same diagnostic strategy regardless of clinical setting, while the other half varied their diagnostic strategy in the different clinical settings, more often ordering the most tests in the E.D. setting. The distribution of groups

Table 3.—Diagnostic strategy options ranking by pediatrician characteristics (row percentages)

	ED=Ofc=Dtr	ED>Ofc>Dt	ED=Ofc>Dtr	Other
All	65 (47%)	55 (40%)	14 (10%)	4 (3%)
Board certification				
Not board certified	14 (40%)	12 (34%)	7 (20%)	2 (6%)
Board certified pediatricians	51 (50%)	43 (42%)	7 (7%)	2 (2%)
Board certified subspc.	10 (55%)	6 (33%)	2 (11%)	0
Medicaid percentage of practice				
<10%	15 (48%)	13 (42%)	2 (6%)	1 (3%)
10% to 25%	16 (48%)	15 (45%)	2 (6%)	0
26% to 50%	6 (40%)	6 (40%)	1 (7%)	2 (13%)
>50%	20 (42%)	19 (40%)	8 (17%)	1 (2%)
Not applicable	8 (73%)	2 (18%)	1 (9%)	0

Table 4.—Pediatrician diagnostic treatment choices in three different settings (row percentages)

	ED				Office			Daughter		
	Total (n)	No ABX (%)	Hi WBC ABX (%)	ABX in All (%)	No ABX (%)	Hi WBC ABX (%)	ABX in All (%)	No ABX (%)	Hi WBC ABX (%)	ABX in All (%)
All	138	49	46	4	80	18	2	85	13	2
Board certification										
Not board certified	35	40	54	6	63	34	3	74	23	3
Board certified pediatricians	103	52	44	4	86	33	1	88	9	2
Board certified subspc.	18	61	33	6	67	11	22	78	17	6
Medicaid percentage of practice										
< 10%	31	52	45	3	81	16	3	81	16	3
10% to 25%	33	55	39	6	85	15	0	85	12	3
26% to 50%	15	40	53	7	67	33	0	80	20	0
> 50	48	46	50	4	79	19	2	88	11	2
Not applicable	11	73	27	0	91	9	0	91	9	0

diagnostic strategy ranking did not differ significantly when stratifying the pediatricians by survey group, practice type, board certification, medicaid percentage of practice, age, sex, or family profile.

Table 4 takes the antibiotic strategy choices in table 1 and categorizes them into: 1) no antibiotics, 2) antibiotics only if WBC high, 3) antibiotics regardless of WBC (all patients). One pediatrician wrote in an antibiotic choice to administer antibiotics depending on the differential. This choice was included in the "antibiotics only if WBC high" category. Table 4 stratifies these frequencies among the three different clinical settings by several pediatrician profile variables.

Stratification of the office setting antibiotic treatment choices by board certification groups showed a significant difference (p<0.01) with non-board certified pediatricians (mostly residents) more likely to choose antibiotics compared to board certified pediatricians. For the E.D. and daughter settings, the board certification

Table 5.—Some recent recommendations in the literature for children at risk of bacteremia.

Baraff, et al (1993, expert panel practice guidelines) ^{4,5} CBC if temperature >39 C. If WBC > 15,000, obtain a blood culture and treat with ceftriaxone. Obtain urine cultures in all males under 6 months and all females under 2 years who are treated with antibiotics. Alternate option is to obtain a blood culture and treat all children with temperature >39 C with empiric antibiotics.
Baraff (1993, review article) ²² Same recommendations as above.
Baraff, et al (1992, management guidelines) ²³ Blood culture and empiric antibiotics. CBC is not recommended.
Bass et al (1993, 519 patients) ⁶ WBC > 15,000 and fever >39.5 C identify children at high risk and should be treated with antibiotics (amoxicillin/clavulinate or ceftriaxone). Routine treatment of others does not appear to be indicated.
Downs, et al (1991, decision analysis) ¹ Blood culture and empiric antibiotics for all those at risk (2-24 months and rectal temperature >39 C).
Fleisher, et al (1994, 6680 patients) ¹⁰ If empiric antibiotics are to be given, ceftriaxone provides a safe and effective alternative (better outcome profile compared to amoxicillin, however, not statistically significant).
Jaffe (1994, review article) ⁷ CBC. Blood culture and empiric antibiotics if WBC > 10,000 or WBC > 15,000.
Kramer, et al (1989, decision analysis) ²⁴ No blood culture strategy has the greatest utility.
Lieu, et al (1991, decision analysis) ² Blood culture and empiric antibiotics.
Long (1994, editor's column) ³ No tests, no antibiotics as the preferred choice.
Singer (1995, review article) ²⁵ 3-6 months: Urinalysis. Parenteral ceftriaxone is not cost effective. No blood work unless temperature exceeds 41 C. 6-24 months: CBC and blood cultures if temperature >40 C. Treat with parenteral antibiotics if WBC > 15,000.

groups were not significantly different. The distribution of antibiotic treatment choices in each clinical setting did not differ significantly between survey groups, practice setting, medicaid percentage of practice, pediatrician's age, sex, and family profile.

Antibiotic strategies were rank ordered (using the antibiotic strategy categories in table 4) among the three different settings similar to the tabulation in table 3. Roughly 60% of the pediatricians selected the same antibiotic treatment strategy regardless of clinical setting, while the other 40% varied their antibiotic treatment strategy in the different clinical settings, most often using antibiotics in the E.D. setting. This distribution of antibiotic treatment strategy ranking did not differ significantly when stratifying the pediatricians by survey group, practice setting, board certification, medicaid percentage of practice, age, sex, or family profile.

Note that the absence of statistical significance may be due to type II error (inadequate sample size) or a true absence of a difference. The sample size here is not large enough for some of the attempted stratifications.

Discussion

Survey participants were specifically informed that this was merely a preference survey and not a test or exam of any type. However, it was evident that some survey participants took this as a "test" since they went back to change responses on page one after completing page two and/or page three. There was no effort to change this behavior once the survey was started with the participant. This "Hawthorne effect", which describes a phenomenon where the behavior of study participants (pediatricians in this study) changes when they are aware that they are part of a study¹⁴, applies to this study since surveyed pediatricians were aware that this was a study survey. The interpretation of this data should take this into consideration. Since half the pediatricians chose the same clinical approach in all three settings, while the other half varied their approach, the direction and magnitude of bias due to the Hawthorne effect cannot be determined under the limited conditions of this survey. In actuality, conclusions from this survey are based on what the pediatricians reported they would do. It would be nearly impossible to carry out such a study to see what they actually do in practice since only a few office pediatricians routinely staff emergency departments and the diversity of patients presenting in the different settings would be difficult to control. Several previous studies in related subject areas have relied on survey data.¹¹⁻¹³

Sampling of study subjects (pediatricians) was that of a convenience sample. The authors knew nearly all the civilian practicing pediatricians in the entire county. Those who were encountered during medical activities (meetings, patient care activities, etc.) were surveyed in person (100% participation of those interviewed in person). For those pediatricians who were not encountered in person during the study period, the surveys were mailed to them. Of the 48 who were mailed surveys, 27 (56%) returned them. While this sampling is not necessarily random, it is a convenience sample which encompasses a high percentage of the target group (87%) of 159 pediatricians targeted in the county. Only the mailed surveys were subject to participation bias (20%, 27 of 138). Statistics comparing the mailed survey group versus the others showed no significant difference between these two groups.

While practice guidelines have recommended routine blood culture or WBC testing for febrile children at risk for occult bacteremia, they allow for individualizing therapy based on clinical circumstances or variation of these guidelines based on a different interpretation of the evidence.^{4,5} Most of the reports studying febrile children have been done in emergency department or large hospital based clinic cohorts, both of which lack the degree of continuity found in a private office. The conclusions and recommendations from studies of E.D. cohorts cannot necessarily be extrapolated to patients in a private office setting since this survey indicates that there is a statistically significant difference in the ways in which patients in these two settings are managed.

This survey indicates that the practice guidelines^{4,5} were largely not followed for this case in all three clinical settings. Since the patient case used in the survey was a female, following the practice guidelines would have entailed blood and urine studies and empiric antibiotics (in all instances or alternatively, if the WBC > 15,000).^{4,5} This survey shows that the actual frequencies of pediatricians ordering blood studies in the E.D., office, and daughter settings were 25%, 16%, and 12%, respectively. The frequencies of ordering

urine studies in the E.D., office, and daughter settings were 45%, 32%, and 13%, respectively. Blood and urine studies together, were only ordered in 3%, 7%, and 4%, respectively (no statistical difference). The practice guideline's recommendation "option 2" of blood culture if the WBC is high was selected in only 17%, 6%, and 4%, respectively. Blood cultures were more frequently ordered regardless of WBC result in 40%, 12%, and 10% of instances, respectively. In the office and daughter settings, pediatricians largely refrained from empiric antibiotics. Even in the E.D. setting, 49% of the pediatricians refrained from empiric antibiotic use, while only 4% used empiric antibiotics regardless of the WBC result.

Almost no one used antibiotics without blood work of some type. For the E.D., office, and daughter settings, antibiotics were used without tests of any type in 1, 1, and 3 instances, respectively. Antibiotics were used without a blood culture in 7, 8, and 5 instances, respectively. The patient case used in this survey had no evidence of otitis media. If this patient had clinical evidence of otitis media with effusion (OME)¹⁵, it is likely that the frequency of antibiotic use without a blood culture would have been higher despite recommendations that OME does not necessarily require antibiotics (as opposed to acute otitis media),¹⁵⁻²⁰ and the risk of bacteremia is similar in patients with and without otitis media.²¹

This substantial deviation from the practice guidelines^{4,5} is not surprising since previous surveys have demonstrated this as well.^{11,12} In addition, one cannot adopt the practice guidelines in isolation, considering the substantial number of publications in the literature with alternative recommendations. A brief listing of these demonstrating the diversity of recommendations is provided in table 5.

In theory, physicians might provide the most thoughtful consideration for the medical care of their own family members. While this is not always the case, due to conflicts of interest, physicians generally have the best knowledge base to make these decisions for their family members. This survey indicates that in this example, many physicians would not treat their patients in the same manner as they would treat their own family members.

The high cost of emergency care is in part due to the expense of maintaining a full service 24-hour emergency facility (staff and equipment). This survey indicates that part of the high cost of emergency care is the nature of the emergency department setting which, for various reasons, results in more tests being ordered. Office pediatricians were likely to order blood and/or urine studies on the E.D. patient, but less likely to order laboratory studies on their private office patient. This pattern was also noted in the group of eight pediatric emergency physicians. Thus, the E.D. setting is a factor that plays a major role since this study demonstrates that non-emergency physicians (general pediatricians) exhibited this same behavior.

Note that in the case scenarios, the office patient was seen on a Tuesday, while the E.D. patient was seen on a Saturday. The different days were chosen since typically, office patients are seen during the weekdays (during business hours) and E.D. patients are seen during evening and night hours and often on the weekends and holidays. Thus, the day of the week and the hour of the day are also part of the "clinical setting". The E.D. clinical setting encompasses the additional characteristics of weekends, holidays, and nights. In studies of E.D. febrile children, it is highly likely that the vast

majority of the patients do NOT present during office hours. The day of the week and hour of the day MUST be included as part of the E.D. setting since this difference is reality. Standard office hours encompass roughly one-fourth of the 7-day week, while non-office hours encompass three-fourths of the week. This time distribution substantially favors E.D. visits during non-office hours.

Other factors present in the E.D. setting include absence of a longstanding physician-patient relationship and the higher risk nature of the E.D. given patient self-selection to seek emergency care.

While the assessment of patient reliability is assumed to have a significant impact on how physicians manage patients, patient profiles were assumed to be the same in the case examples in this survey (although there was less certainty of the assumed patient profile for the E.D. patient). Factors which may account for the difference in diagnostic and therapeutic approaches for the office and E.D. settings include: 1) An E.D. patient may be perceived to be at higher medical risk than an office patient with the same presenting history and exam. 2) An E.D. patient does not have the same long term relationship with a physician that a private office patient has. 3) There may be higher expectations of perfection for an E.D. patient, where follow-up with the same physician is unlikely compared to a private office patient where follow-up is more likely.

In summary, under the limited circumstances of this survey, in approximately half the surveyed pediatricians, the clinical setting has an effect on the diagnostic and treatment strategies chosen when evaluating a febrile child at risk for occult bacteremia with E.D. patients receiving more laboratory tests and antibiotic treatment compared to office patients. Kinship also has an effect with a child (daughter in this instance) of a pediatrician receiving the fewest laboratory tests and antibiotic treatment.

Appendix A - Case Presentation

1. You are in your office and you evaluate the following child on a Tuesday:

14-month old female with a history of fever to 103F/39.4C degrees (rectal) at home since 7:00 a.m. today. It is now 3:00 p.m. She has vomited once. No diarrhea. There is an occasional cough but no nasal congestion noted. She goes to day care, but there are no known ill contacts. Mother gave 80mg of acetaminophen 4 hours ago. She reports that the fever went down after the acetaminophen but she feels hot again. Her oral intake is slightly less than normal.

Exam: Temp 103.0F/39.5C (rectal), P120, R34, BP 75/45, Wt 10 kg (50th pctlle). Alert, active, not toxic, not irritable. Not fussy when bounced by mom. Anterior fontanelle closed. Eyes clear. TM's normal. Oral mucosa clear and moist. Pharynx normal. Neck supple. Heart regular, no murmurs. Lungs clear. Not coughing. No tachypnea. Abdomen soft, flat, BS active, non-tender, no hernias. No CVA tenderness evident. Color, perfusion, muscle tone good.

PMH-healthy. Family profile: This is your practice's "average patient" with your practice's "average parents".

A. Please check off the diagnostic options that you would do (may check more than one):

- Home observation. Parent to call me if any worsening.
- Administer acetaminophen in office and reassess in office in 45 minutes*
- CBC
- Blood culture
- Blood culture only if WBC elevated (eg., >10,000 or >15,000 or >20,000)
- Bag urine specimen studies
- Catheterized urine specimen studies
- Refer to Emergency Department for further evaluation
- Admit to hospital inpatient unit

B. Please check off the antipyretic treatment options that you would do (Check one or two. Checking off more than one means that you would recommend both measures):

- Acetaminophen 80 mg every 4 hours

- Acetaminophen 120 mg every 4 hours
- Acetaminophen 160 mg every 4 hours
- Ibuprofen 50 mg every 6-8 hours
- Ibuprofen 100 mg every 6-8 hours

C. Please check off the antibiotic treatment option that you would do (check one only):

- No antibiotics
- Antibiotics if WBC is greater than 15,000
- Antibiotics if WBC is greater than 20,000
- Antibiotics regardless of WBC result

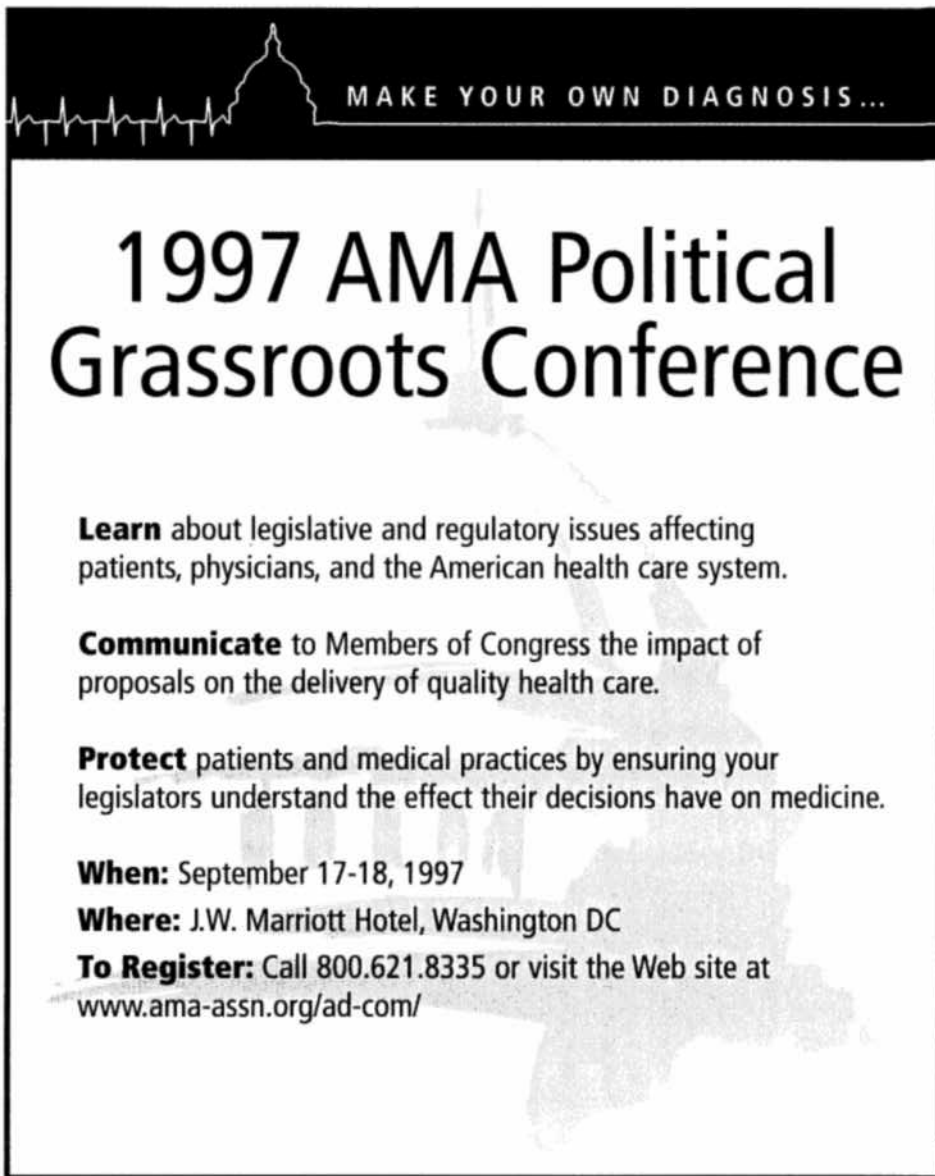
D. If you considered an antibiotic treatment option above, please check off which

antibiotic you would choose (check one only):

- Oral antibiotics (any one)
- IM ceftriaxone (Rocephin) plus oral antibiotics (any one)
- Daily IM ceftriaxone for at least 3 days

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