

TABLE E-1 Univariate Analysis: Transient Synovitis Compared with Septic Arthritis\*

Variable	Transient Synovitis (N = 103)	Septic Arthritis (N = 51)	P Value
Age (years)	5.8 ± 2.3	5.7 ± 3.6	0.83
Male gender (no., %)	73 (71%)	25 (49%)	0.01†
Duration of symptoms (days)	3.8 ± 4.8	2.7 ± 2.2	0.12
History of fever (no., %)	25 (24%)	31 (61%)	<0.001†
History of chills (no., %)	0 (0%)	2 (4%)	0.20
History of antibiotic use (no., %)	18 (17%)	6 (12%)	0.48
Radiographic effusion (no., %)	11 (11%)	7 (14%)	0.79
Non-weight-bearing (no., %)	50 (48%)	43 (84%)	<0.001†
Temperature (°C)	37.3 ± 0.7	37.7 ± 1.0	0.002†
Erythrocyte sedimentation rate (mm/hr)	28.1 ± 23.0	45.7 ± 25.1	<0.001†
Hematocrit (%)	36.3 ± 2.8	34.8 ± 4.0	0.002†
Platelet count (×1000/mm <sup>3</sup> )	350.7 ± 92.0	382.8 ± 160.5	0.13
White blood-cell count (×1000/mm <sup>3</sup> )	11.0 ± 3.8	14.2 ± 4.8	<0.001†
Neutrophils (% differential)	62.4 ± 13.4	66.8 ± 13.7	0.08
Lymphocytes (% differential)	26.7 ± 11.6	20.9 ± 10.3	0.004†
Monocytes (% differential)	5.3 ± 2.1	6.2 ± 3.4	0.07
Bands (% differential)	3.2 ± 3.0	8.0 ± 10.5	0.28
Atypical lymphocytes (% differential)	3.1 ± 1.3	2.9 ± 1.6	0.38
Eosinophils (% differential)	2.0 ± 1.8	2.0 ± 2.0	0.95
Basophils (% differential)	2.7 ± 1.8	3.1 ± 1.7	0.19

\*The values are given as the mean and the standard deviation for continuous variables and as the number of patients and the percentage for categorical variables. †p < 0.05.

TABLE E-2 Algorithm for Probability of Septic Arthritis

History of Fever	Non-Weight-Bearing	Erythrocyte Sedimentation Rate $\geq 40$ mm/hr	Serum White Blood-Cell Count $>12,000$ cells/mm <sup>3</sup> ( $>12.0 \times 10^9$ /L)	Predicted Probability of Septic Arthritis	Distribution of Septic Arthritis (New Population)
Yes	Yes	Yes	Yes	99.8%	91.8%
Yes	Yes	Yes	No	97.3%	83.3%
Yes	Yes	No	Yes	95.2%	71.7%
Yes	Yes	No	No	57.8%	38.0%
Yes	No	Yes	Yes	95.5%	65.7%
Yes	No	Yes	No	62.2%	31.7%
Yes	No	No	Yes	44.8%	30.0%
Yes	No	No	No	5.3%	9.4%
No	Yes	Yes	Yes	93.0%	72.2%
No	Yes	Yes	No	48.0%	38.6%
No	Yes	No	Yes	33.8%	36.8%
No	Yes	No	No	3.4%	12.3%
No	No	Yes	Yes	35.3%	30.5%
No	No	Yes	No	3.7%	9.6%
No	No	No	Yes	2.1%	9.0%
No	No	No	No	1 in 700	2.3%

TABLE E-3 Distribution of Number of Multivariate Predictors and Simplified Probability of Septic Arthritis Algorithm

Number of Predictors*	Transient Synovitis (N = 86)	Septic Arthritis (N = 82)	Predicted Probability of Septic Arthritis	Distribution of Septic Arthritis (New Population)
0	19 (22.1%)	0 (0%)	<0.2%	2.0%
1	47 (54.7%)	1 (1.2%)	3.0%	9.5%
2	16 (18.6%)	12 (14.6%)	40.0%	35.0%
3	4 (4.7%)	44 (53.7%)	93.1%	72.8%
4	0 (0%)	25 (30.5%)	99.6%	93.0%

\*The predictors included a history of fever, non-weight-bearing, an erythrocyte sedimentation rate of  $\geq 40$  mm/hr, and a serum white blood-cell count of  $>12,000$  cells/mm<sup>3</sup> ( $>12.0 \times 10^9$ /L).