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mortality and morbidity. The use of sulfonamides alone or as sulfamethoxazole in combination with trimethoprim should be avoided in those geographic areas and seasons of the year favorable for tick multiplication.

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Warning: Spurious elevations of blood lead in micro puncture techniques

To the Editor:

It has been shown that printed media (newspapers, magazines, etc) may contain significant quantities of lead.¹ Various paper products currently available, notably towels or napkins, are often made from recycled paper. The companies who manufacture such products use deinking processes to clean and bleach the recycled materials.² The resultant product may still contain troublesome amounts of lead.

Failure to recognize this problem can yield erroneous values for blood lead when paper towels are used as directed in instructions given for screening for microsampling techniques: "after the patient's hand is washed, the helper wraps damp paper towel over the patient's hand and delivers the patient to the site of collection."³

Recently, we observed what appeared to be inordinately high values for blood lead in children who were asymptomatic, and in whom free erythrocyte protoporphyrin levels were too often inconsistent with their blood lead levels. The appearance of unexpectedly high values of blood lead coincided with the change in paper towelling used in following the above cited directions. Analysis of the older towelling (115 towel, Scott Paper Co., Lyndhurst, NJ) indicated that it contained 1/5 of the lead content of the newer towelling (Professional Service Towels, Marcal Paper Mills, Elmwood Park, NJ). The latter was made from 60% "high quality" recycled material.

The Marcal towel contained approximately 5 ppm lead. Normal blood lead values are in the range of less than 0.4 ppm (40 µg/dl). It is easy to suspect that some lead from the paper could be transferred to the finger, thus giving spuriously high

blood lead values. The clinical significance can be seen from the comparison of the results in the following three patients prepared with each of the two towels (Table I).

Other investigators have abandoned strenuous finger-washing techniques when it was found that this could give erroneous high values.⁴ We have abandoned the use of paper towel wrapping and no longer encounter inexplicable high values for blood lead.

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Growth and phototherapy

To the Editor:

Wu and associates¹ have suggested that more adequate supportive therapy of the newborn infant during phototherapy could limit eventual alterations of growth. The authors studied growth during the first four weeks of life in controlled and in treated subjects. The phototherapy groups showed decreased growth

See related article, p. 92.

Table I. Blood lead in three patients

Patient	Marcal towel (µg/dl)	Scott towel (µg/dl)
A	56	33
B	57	24
C	44	29

during the first week and greater weight gain in weeks two and three as compared to the control group.

We have studied 90 low-birth-weight newborn infants randomly assigned to the following groups: control (no therapy except exchange transfusion); continuous phototherapy (96

Table I. Ponderal variations in the first four weeks of life of three groups of study (weights in grams) (daily mean \pm SD)

Groups	Birth weight	First week	Second week	Third week	Fourth week
Controls	1,923 \pm 317	-53 \pm 108	+201 \pm 83	+202 \pm 60	+209 \pm 50
Continuous phototherapy	1,980 \pm 344	-49 \pm 90	+149* \pm 77	+184 \pm 70	+206 \pm 65
Intermittent phototherapy	1,913 \pm 456	-75 \pm 89	+126† \pm 76	+124 \pm 87	+176 \pm 79

*Student's t: 2.48; $p < 0.002$.

†Student's t: 3.52; $p < 0.001$.

hours of continuous treatment from the first to the fifth day); intermittent phototherapy (72 hours of treatment alternating 12 hours of therapy and 12 hours without phototherapy from the first to the seventh day). Phototherapy treatment was provided with Air Shield phototherapy units using vita light.

The groups are similar for sex, gestational age (controls: 32.4 ± 2.7 weeks; intermittent phototherapy: 34.5 ± 2.9 ; continuous phototherapy: 34.5 ± 2.4 weeks), and birth weight. All of the newborn infants were placed in incubators (Air Shield Model Isolette C 86) with the same environmental conditions of temperature (according to Scopes and Ahmed²) and humidity (40 to 60%); they received the same amount of fluids and calories per kilogram per day for the period of study. Table I shows the growth data of the three groups during the first four weeks of life.

During the first week we found a uniform weight loss in all three groups; during the second week the weight gain was significantly greater in the control than in the treated infants. In the third and the fourth week growth was similar in the three groups. We did not find any significant difference in the growth of the head circumference.

Phototherapy was efficacious in preventing hyperbilirubinemia, the continuous treatment more so than the intermittent phototherapy.

Although Wu and associates maintain that the phototherapy might induce a catabolism and a less marked increase of growth followed by a catch-up in growth during the second and third weeks, our results do not support this hypothesis. We observed variations in growth during the second week of life; all subjects increased their weight, but the control infants had a significantly greater weight gain. We believe that the growth variations in treated subjects could be related to metabolic alterations more complicated than those proposed and may represent untoward effects of the light.

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Opening Pandora's box!

To the Editor:

The demise of the once popular penicillin-sulfa combination^{1, 2} finally began when the National Academy of Sciences National Research Council undertook the Drug Efficacy Study in 1966 under contract with the Food and Drug Administration (FDA). Under the leadership of Drs. William L. Hewitt and Calvin M. Kunin, two groups (panels) of the cognoscenti evaluated oral penicillin-sulfa fixed combinations. Their unanimous conclusion, as we well know, was that all these "combinations are ineffective as fixed combinations."³ The group hedged a wee bit when they wrote about the antimicrobial-fixed combination used in acute otitis media, but they still recommended that the FDA withdraw the combination even for this use.

At the risk of opening Pandora's box, I must question whether the reasoning of the 1960s is applicable to 1977. With the widespread emergence of resistant strains of typable and nontypable strains of *Hemophilus influenzae* causing otitis media, there may be a need to keep an open mind on this subject.

Howie reports that 2% of the patients in Huntsville, Alabama, who have *H. influenzae* otitis media are currently resistant to ampicillin.⁴ In our series of patients from Vienna, Virginia, we have found 16% of *H. influenzae* from acute otitis media to be resistant to ampicillin in 1976. Even more worrisome is the 56% resistance we encountered in November and December of last year (ten of 18 cases).

It has been said that penicillin alone is adequate treatment for acute otitis media in children.⁵ Previous studies by Howie and Ploussard⁷ and Howard and associates⁸ have amply proven the benefit of a combination over penicillin alone, sulfisoxazole alone, or erythromycin alone. If the umbrella of ampicillin is watertight, so much the better, but if large leaks occur we will need better protection against *Hemophilus* otitis media.

It will be said that two prescriptions are just as easy to write as one. The penicillin-sulfa-fixed combination or the erythromycin-sulfa-fixed combination are two examples of combinations in which the dose of penicillin or erythromycin is easy to calculate with the mg/kg dose of sulfisoxazole in the same container. It would seem that the lesser cost in having one prescription to write and fill and the likelihood of increased parental compliance in administration of one drug rather than two may outweigh any theoretical disadvantages.

With the recent approval of the sulfamethoxazole/trimethoprim combination for treating chronic urinary tract infection even for infants above two months of age, it seems that the "box"