

# AMERICAN ACADEMY OF PEDIATRICS

## Committee on Drugs

### Acetaminophen Assay

In its 1978 "Commentary on Acetaminophen,"<sup>1</sup> the Committee on Drugs made reference to a colorimetric assay method in kit form (Kendal et al)<sup>2</sup> which purportedly provided a reliable, quick, and practical method for identifying patients with potentially toxic concentrations of serum acetaminophen. Since publication of the commentary, the Committee has become aware of several reports of problems with the accuracy and specificity of this assay which limit its reliability and usefulness.<sup>3-7</sup>

Although the Kendal assay was mentioned in the commentary for informational purposes only, it has become apparent from subsequent comments in the literature that at least some individuals construed this mention as a tacit endorsement by the Academy of this specific assay method. It is not now and has never been the business or intent of the Committee or the Academy to recommend a specific analytic method for measuring acetaminophen. Numerous methods to measure acetaminophen in serum have been described during the past five years. The comparative advantages and disadvantages of the various methods were recently reviewed by Wiener,<sup>7</sup> and this study should be used for specific information. Drugs other than acetaminophen—including salicylate, phenobarbital, and phenylbutazone—interfere with some of the colorimetric and spectrophotometric methods described in the literature. In addition, some methods measure inactive conjugates of acetaminophen as well as the active drug, thereby providing erroneously high results. The method used by a specific laboratory will depend, to a great extent, on the available analytic equipment and expertise. Therefore, it is important that the physician be aware of the method being used and the potential shortcomings and error in-

herent in that method when he/she interprets the results.

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#### REFERENCES

1. Committee on Drugs: Commentary on acetaminophen. *Pediatrics* 61:108, 1978
2. Kendal SE, Lloyd-Jones G, Smith CF: The development of a blood paracetamol kit. *J Int Med Res* 4(suppl):83, 1976
3. Widdop B: The paracetamol test-kit in practice. *J Int Med Res* 4(suppl): 89, 1976
4. Stewart MJ, Barclay JE: Emergency estimation of plasma paracetamol. *Lancet* 2:362, 1976
5. Rosenbaum JM, Broer HH, Shields J: Misleading results in cases of coexisting acetaminophen and salicylate overdose. *Clin Chem* 26:673, 1980
6. Miceli JN, Aravind MK, Done AK: A rapid, simple acetaminophen spectrophotometric determination. *Pediatrics* 63:609, 1979
7. Wiener K: A review of methods for plasma paracetamol estimation. *Ann Clin Biochem* 15:187, 1978

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