appears the supplies, off-line force workload for them oratories ernment sis

Our money has been directed to computerization, it is dominating (which seems likely, since it is supported by the computer industry, go-

government granting agencies, and most of the active workers in this field), lab-
oratories everywhere will spend untold amounts unnecessarily, the practice of
laboratory medicine will be seriously impeded by inept applications of com-
puter technology, and the physicians using laboratory data will be inade-
quately served.

What is the issue? It is, most sim-
ply, whether the laboratory computer should be on-line or off-line. Drs. Davis
and Lewis believe it should be on-line, and so they devote large sums of
money and much professional effort to an on-line interface. I believe it
should be off-line, and so our effort has been directed to a reliable and ef-
cient off-line system, with two pri-
mary functions: get it right, and get it to the doctor.

I, as well as they, want to see the “best” system in the laboratory. In
whatever way we make this value
judgment, it surely should rest upon
objective facts and logical analysis, free from bias. It is not clear that such
facts and such analysis are currently available. It is clear that laboratory
computerization had a bad reputation in the vast majority of the nation’s
laboratories, presumably because the facts and the analysis are poorly un-
derstood or are in dispute. This gap
should be filled.

I suggest, therefore, that we join in
an effort to ascertain what are the facts about computerization, and what
are the principles we can derive from them to help us in designing our com-
puter systems. It may be that there
are no principles applicable to all lab-
oratories, or that the area of personal
preference or arbitrary judgment is
decisive. It would be most unusual if
this were so, but at least we should recognize that much, and stop writing
papers about it.

The response to this suggestion may
be that the answers are already well
known and firmly established. I
should therefore provide at least a rea-
sonable case against the established
dogma:

1. Our laboratory has operated ef-
effectively without on-line computing
for five years. During this time our
workload has doubled, and our work-
force has actually decreased, using an
off-line computer.

2. The total cost of our off-line com-
puter system (equipment, rental, supplies, operating personnel, plus all
research and development) has been
very much less than the rental alone of the conventional on-line system.

3. Our overall reliability, off-line,
appears to be better than that re-
ported in the Barnes Hospital study
referred to by Drs. Davis and Lewis. (I
intend to analyze this study in another
place.)

4. Our system enjoys overwhelming
support among the medical staff, suf-
ficient, for example, to maintain it
against recommendations by three
outside consulting groups to replace it
with conventional on-line systems.

How can this issue be finally deci-
ed? I appeal to the profession as a
whole: full publicity, no coverup by es-

tablished interests, no evasions of ob-
jective facts and logic, and informed
decision by every clinical chemist on
his professional responsibility. Our
professional responsibilities demand
no less.

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Determination of Salicylate
and Its Metabolites in Urine

To the Editor:
The note by Farid et al. (1) claims,
based on the results of an experiment
with one human subject, that our
method of total salicylate determina-
tion in the urine (2) leads to recovery
of 120.3% of the dose (which would
make the method useless). They then
imply that our reported recoveries of
95 to 100% were obtained because we
chose to collect urine until we had ob-
tained this extent of recovery! Had
Farid et al. examined the full publica-
tion by Levy and Tsuchiya (3) of the
1969 abstract that they cited, they
would have found the “accuracy” data
that they claim do not exist: a recov-
ery from urine 99.7 ± 2.1% (mean
±SD, n = 5) of a 1-g dose of aspirin
when urine was collected until salicy-
late (above blank values) could no
longer be detected. The latter practice
is obviously followed routinely, as evi-
dent not only in the paper by Levy
and Tsuchiya, but even in a report
that we published as early as 1964 (4).
Our method for total salicylate deter-
mination in urine is being used in sev-
eral laboratories and has consistently
yielded close to 100% recovery when
aspirin was administered to human
subjects in solution or in rapidly dis-
solving tablets.

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Ed. note: The authors of the paper
in question were invited to comment,
but no response was received.

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