



WORLD HEALTH ORGANIZATION COLLABORATING CENTER

FOR REFERENCE AND TRAINING IN

REMOTE SENSING AND GEOGRAPHICAL INFORMATION SYSTEMS FOR VETERINARY PUBLIC HEALTH

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Dr. Mathew Meselson,
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Dear Mathew,

Please excuse my delay in getting back to you but family and the holidays got in the way. Before I forget, congratulations on being appointed to the CISAC committee. I suspect that you have been wanting that for some time.

THE paper:

AUTHORSHIP:

I have no problems with Alex Langmuir nor did I raise them earlier as I knew that he had been helping y'all out. Added to which it is a nice posthumous recognition of his involvement. Popova in my view is a technician in that she was paid for her help, but if you want to include her as we do sometimes in such circumstances fair enough. Olga was a member of the team. Your holding out against David gives the impression, rightly or wrongly, of a private agenda. Now let me let you into something on the structured aspects of epidemiological investigations, that Alex may have overlooked when holding your hand at Woods Hole, and it goes back to the basics of such investigations. In fact it is part of the tradition of such investigations and was probably codified by him when he first set up the EIS training programme at CDC. There are eleven investigation "steps" ending up with "Write your report". The first is "Verify the outbreak". The second is "Verify the diagnosis". Extremely important and I can tell you from personal experience that life gets complicated when you skip it or take the original diagnosis for granted. David played a vital part in that Step 2. He independently confirmed that [1] we were dealing with anthrax and [2] that it was pneumonic anthrax and [3] that there were no cases of enteric anthrax ... something we would have had to take on trust otherwise from Abramova & Grinberg. It radically strengthened our investigative hand. This goes beyond mere pathology. I suggest that you check my comments on the classical CDC investigative steps with Alexis and the importance of Step 2.

BODIES:

Spirina: She does seem to fall into the 50% probability range - Lev says 'no', David says 'yes', and Jerry says 'she cannot be ruled definitely in or out'.

Dead Young Man: Jerry/Lev's detailed pathology has him dying on 10th June (69 days) based on the level of autolysis. I suggest that you give him an "726" age. Also put him at the end of the deaths. *OK*

Clinical Cases:

ID#s: It is confusing to give these people ID#s as they get confused with the Official Numbers of the Dead - why don't you just list them a to j. *OK*

[a] Those beyond Nikiforov's five must reflect some interviewing successes by Jeanne & Ilona? And they do confirm some details from Ilenko, which is nice. Were there any such interviews that did not? *yes*

[b] Fedulov (81) and Fedulova (82): This is a nice domestic cluster, which Burgasov had denied. Does Fedulov have initials? *both are certainly one by cluster*

[c] Poleshaeva (85) and Andrei Pavlovich Polezhaev, aged 74, and is buried in the East Cemetery along with the other anthrax cases. Why do you include the daughter and ignore the ?father. By the bye, my analysis of the graves indicate that he probably died on the 9th April. Or have I got a different transliteration and he was Valeriy Deodorovich Poletaev (12) who died on 12th April?

Dead Russians:

Tischenko (68) - thanks for the birthdate/age correction. Were there any other changes, additions/subtractions, on the second Mishustina list? *no*

Tipikin (32) - I have a note that he died on the 16th April. I have yet to trace the source.

Myasnikova (19) - from the placing of her grave she died on the 12th April.

Tarassenko (8) - ditto 14th April.

Aerosol Calculations:

Two problems - in spite of TNO's concordance, of which I am independently aware.

LD50 @ 4000 spores: The Glassman-Jemski exercise used an anthrax sensitive species of monkey. Through your committee involvements

*Lev:
Dated in
Negative
No nec notes
Jerome Smith!
Did not die / fresh
expected med. fib.
- almost none
No histological
No histology
notes*

*Not the
daughter of
Poleshaev or
Poleshaev
Poleshaev is
included,
as he is on
off list.
Poleshaev is
not on off
list.
no other leads.
address is a
mistake for
him.*

with BW you are aware of published and unpublished exposure experiments by others at USAMRIID and Forton with other monkeys that consistently indicate an LD50 in the 10^{**4} range, in spite of Erlick's statement. Because everyone else has limited their numbers of monkeys to just get the LD50, the shapes of the probit curves for the other species are not known though suspected. To test the robustness of your results, you would be advised to rerun your model at a higher LD50 to see what difference it makes; you might assume a jacked-up Jemski probit curve in the absence of any hard information to the contrary.

Zero deposition: This does worry me greatly. You assume a perfect aerosol from the gitgo, which is at best extraordinarily controversial.


Sheep @ Abramovo: the copy of your calculations that you so kindly sent me had a maximum dose of 0.55 spores at that village. This does not quite match your script as being capable of killing a sheep.

All in all I am reminded of Captain Marryat's nurse in "Midshipman Easy". Her excuse was that it was a very little baby.

The paper is looking much better.

Best wishes for the New Year,

yours sincerely,



Martin Hugh-Jones

cc: AS