

# NCI-CSPH CHORNOBYL TECHNICAL SUPPORT GROUP

Robert J. McConnell, M.D.

## TRIP REPORT 29 MARCH-2APRIL 1999

### MINSK, BELARUS

#### Summary:

1. Although renovations of the clinical areas at the new Republican Dispensary have disrupted screening of the cohort, the work is near completion.
2. The DCC and Epidemiology groups are currently residing at Dolgobrodskaya, 23, some distance away. Although Dr. Rzhetsky plans to move them to the Dispensary by the end of this year, there has been no formal designation of space for their use.
3. Dr. Olga Polyanskaya, who has joined the Dispensary as a Senior Research Worker, has been manually reviewing the clinical forms, searching for discrepancies and redundancies. She has effectively taken control of quality assurance, but still requires guidance.
4. Dr. Larisa Danilova will be given space at the Dispensary and become more actively involved in the daily activities of the study
5. An abstract was prepared for the European Thyroid Association.
6. Final Summary and Pathology forms are not being entered into the DCC database.
7. The clinical group feels that patients may not be returning for follow-up visits, but cannot independently verify this.
8. Dr. Polyanskaya feels that (a). Patients with abnormal cytology should be referred directly to surgery, bypassing the Aksakovschina Clinic; (b) Dr. Siderov, who works for Dimidchik, should become the study's pathologist.
9. There are major discrepancies in TNM classification of thyroid cancers between Dr. Siderov and Dr. Cherstvoy.
10. Dr. Polyanskaya is actively revising several forms to facilitate data entry and analysis. She was given the list of current ICD-9 and ICD-Oncology codes that I had prepared earlier.

11. It was agreed that multinodularity could be defined by ultrasound criteria alone and that the screening physicians would describe all adenopathy in the case of a palpable nodule and all suspicious adenopathy, even if a nodule were not palpable.
12. Ultrasound images are still being stored on MOD and DAT and not being transferred to CD-ROM. We had a demonstration of a computer program that could transfer images directly to the hard drive, bypassing the MOD and freeing it for use by the mobile team.
13. We agreed to modify the ICD-9 code for chronic thyroiditis to facilitate data analysis.
14. Dr. Gapanovich is confused by Dr. Greenebaum's revisions to the Cytology form.

### **Recommendations:**

1. Enhanced communication between the DCC and screening physicians should be encouraged to (a). Ensure follow-up of the cohort, which may become a problem; (b). Ensure that patients referred to the Aksakovschina Clinic for further evaluation complete this maneuver in a timely fashion.
2. Dr. Polyanskaya would benefit from both a Quality Control Manual and a means to electronically screen the clinical data for discrepancies and redundancies.
3. Outside expert review of pathologic material should be done soon, as there are major discrepancies in the TNM classification of thyroid cancers and Pathology forms are not being entered into the DCC database.
4. The clinical group should be encouraged to fill of the Final Summary forms even though not all laboratory data is complete.
5. Dr. Greenebaum and Gapanovich will need further discussions in order to resolve their differences.
6. Small group visits, dedicated to solving specific problems, should become the norm, not the exception.

## **Time-line:**

The warming sun made snowmelt rivulets appear on every sidewalk and in every street, but no one was complaining. Although boots were indispensable, jackets were optional, and the whole of Minsk seemed to be strolling along the banks of the Svislach River. Within the Republican Dispensary a rejuvenation of another sort was taking place.

**29 March 1999:** Dr. J. Robbins and I began our visit with a tour of the renovated screening center in the new Republican Dispensary, lead on by Dr. V. Rzheutsky, who was beaming like a proud father. Although the work is months behind schedule and has disrupted clinical operations, it is close to completion. Dr. Petrenko was moving equipment into his new laboratory, which he feels is cramped, but adequate. He estimates that the move will cost him 2 weeks of lost time. There is a plan to move both the DCC and Epidemiology groups to the Dispensary by the end of this year, but there are no available rooms and they may find themselves literally in the hallway. At the present time, they share one-half of a floor in an office building at Dolgobrodskaya, 23.

The addition of 2 dynamic people should greatly benefit the BelAm Thyroid Study. Dr. Olga Polyanskaya, whose official title is Senior Research Worker at the Dispensary, has both effectively taken charge of quality assurance and actively resuscitated the project. She has been manually reviewing the clinical forms (a laborious process that could be more easily done by computer), looking for discrepancies and redundancies. Dr. Larisa Danilova, formerly based at the Aksakovschina Clinic and now Chief of Endocrinology at the Belarusian State Institute of Advanced Medicine, will be given office space at the Dispensary and become more active in the daily operations of the study.

At the suggestion of Dr. G. Beebe, Dr. J. Robbins had drafted an abstract to be presented at the August 1999 meeting of the European Thyroid Association in order to acquaint others with the goals and early results of the study. Drs. Danilova, N. Litvinova (Chief of Thyroidology at the Dispensary), and Polyanskaya worked with us to complete the final version, which is attached as an appendix. From 1 January 1997 to 1 March 1999, a total of 3649 subjects have been screened. There have been 134 nodular goiters (80% solitary) and 41 cancers (all papillary), 28 of which were previously diagnosed.

It is clear that there has been much progress in transferring data from the Dispensary to the DCC. However, some data is missing: in 1997, Preliminary Summary forms were missing for 222 cohort members and in 1998, for 62. Also, Final Summary forms are not

been filled out, largely because of missing laboratory data, and Pathology forms are not being completed in a timely fashion and are not being entered into the DCC database. We were shown one case in which the Pathology Form was not finished until 18 months after surgery.

During last quarter, several patients with suspected thyroid cancer have been lost to follow-up after referral to Aksakovschina, causing much anguish at the Dispensary. Dr. Polyanskaya forcefully made a pitch for direct referral to surgery for patients with abnormal cytology (“Dr. Rzhetsky will take them in his own car”). It was my feeling that this is not the affair of BelAm and should be worked out locally. Furthermore, the screening group is concerned that cohort members may not be responding to requests for return visits and they would like the DCC to work with them to solve this problem. Dr. Rzhetsky told us that he would like to bring both children and adults from the contaminated regions to Minsk during the summer holiday to facilitate follow-up.



**Drs. Robbins, Rzhetsky, and Polyanskaya**

**30 March 1999:** We finished the abstract today and began a meticulous review of patient records selected by Dr. Litvinova. Dr. Rzhetsky popped in and out, keeping abreast of our progress, and Drs. V. Drozd and V. Khlyavich (both sonographers) made occasional guest appearances. On the Prior Medical History Form, Dr. Polyanskaya wants a field added for ICD-9 coding to facilitate data entry and analysis, which seems reasonable. She was given the list of current ICD-9 and ICD-Oncology codes that I had prepared prior to the visit and she will decide which ones are suitable for her purposes. On the Palpation and Preliminary Summary forms, the screening physicians are still using the old WHO

classification of goiter size and do not seem inclined to change to the new classification. We were able to agree that the instructions for the Palpation Form should be modified to describe all lymph nodes in the case of a palpable nodule and all suspicious adenopathy even if a nodule is not palpable. Dr. Litvinova still owes me a copy of these instructions.



**Dr. Nina Litvinova, Chief of Thyroidology**

**31 March 1999:** Today we discovered that there are major discrepancies in TNM classification of thyroid cancers between Dr. Cherstvoy and Dr. Siderov, the pathologist at Dimidchik's Thyroid Surgery Center. In 5 out of the 13 newly diagnosed cases, the pathologists could not agree, with Cherstvoy generally being more the aggressive. Dr. Polyanskaya cites this as a major impediment to entering completed Pathology forms into the DCC database and actively lobbied for eliminating Cherstvoy and using Siderov as the project's pathologist. There is a pressing need for outside expert review to resolve this problem.

Dr. Polyanskaya is reorganizing and rewriting the Summary, Recommendations of Medical Screening and Hospitalization forms (for both the Aksakovschina Clinic and the Oncology Center) to make them more uniform in their appearance and to facilitate data entry and retrieval. In the new Summary, she will add a line indicating whether nodules are palpable or just visible on ultrasound. We agreed that multinodularity could be defined by ultrasound criteria alone and does not have to be a clinical diagnosis and that suspicious lymphadenopathy could also be characterized by sonography and does not necessarily have to be palpable. She is also planning to follow patients postoperatively, which is

beyond the scope of the BelAm Thyroid Study, and is re-entering about 200 Hospitalization forms into the DCC computer.

Our chart reviews turned up several possible sources of bias. A young girl from Gomel was screened at a local hospital and found to have an impalpable thyroid nodule on ultrasonogram, which turned out to be a papillary cancer. It is not clear that she would have presented herself for screening at the Dispensary had her examination been normal. Also, she was treated for several months with L-thyroxine and iodine (standard Belarusian practice), which could affect the risk of developing thyroid cancer (there is currently no easy way to track patients who are treated with thyroid hormone).



**Mud bath reception area, Republican Dispensary**

**1 April 1999:** Ultrasound pictures are currently being stored on MOD disks, the hard disk drive (HDD) of the DCC server, and DAT, but not yet on CD-ROM. According to Vladimir Ryzhkov, a programmer at the DCC, the server is running out of disk space, since it has only a 2 GB HDD and the picture files are large. Arthur Kuvshinnikov, looking relaxed and pleased with himself, showed us a commercial program (developed by a local firm) which can capture ultrasound images directly to the HDD, bypassing the MOD. Once “captured”, the images can be used for clinical follow-up or transferred to either DAT or CD-ROM for archiving. Purchasing this software would free the MOD for use by the mobile team. The program is currently “on loan” to the Dispensary and would cost about \$1500 for a single copy (although several copies would be needed for use on the various computers, each additional copy would be less expensive).

Dr. Yuri Dimidchik was able to meet with us today. He has not as yet given up on the idea of attending the Endocrine Surgeons meeting in late April, but time is very short. A visit to several medical centers this summer, during the holiday period, seems more promising.

Drs. Danilova, Litvinova, Polyanskaya, Robbins, and I had a long and spirited discussion about what criteria to use in the diagnosis of chronic thyroiditis, especially in light of suspect thyroid antibody levels (see Dr. D. Fink's report for details). We agreed to modify the ICD-9 coding scheme for our own use:

- 245.2 chronic thyroiditis
- 245.21 positive antibodies only
- 245.22 positive cytology only
- 245.23 positive ultrasonogram only
- 245.24 elevated TSH with positive antibodies
- 245.25 palpable abnormality with positive antibodies

We also agreed that the Epidemiology group would get the ICD-9 code 245.2 whatever the subclassification and that the clinical group would use the above scheme to track patients.

Dr. Polyanskaya presented a case of a young man with a solitary nodule who did not report to the Aksakovschina Clinic until 18 months later. In order to obviate future delays of this sort, she proposes adding a "Date of Referral" line to the Preliminary Summary Form. The DCC computers could also generate a list of patients who do not report to the Clinic within a suitable length of time, such as 3 months.

Dr. Gapanovich, the cytologist at the Oncology Center, joined us for a review of Dr. Greenebaum's recommendations for revisions to the Cytology Form. She felt that the new changes were "too restrictive" and found problems with the proposed classification for adenomas (benign thyroid tumors).

Finally, we all agreed that more frequent visits by small teams dedicated to solving specific problems were more beneficial than the larger, somewhat unwieldy, group meetings.



**Felix Dzerzhynsky, father of the KGB**