

# Evolution of AIDS policy in the Soviet Union.

## II. The AIDS epidemic and emergency measures

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Officially only one fully developed case of AIDS was identified among Soviet citizens in the USSR before October 1988. The case was extensively studied by the AIDS team of the Central Institute of Epidemiology and described in Soviet medical journals.<sup>1</sup> The 35 year old man, K, was brought to the institute clinic at the beginning of 1987 with advanced Kaposi's sarcoma. Three test systems (the Soviet made Antigen and Western Organin teknika and Diagnostic Pasteur) proved that he was positive for HIV, and the diagnosis was confirmed by immunoblotting at the Institute of Virology. He contracted the HIV virus through homosexual contacts in East Africa, where he had worked as an official in 1981. In July 1982 he developed a complex illness and was brought to Moscow for treatment. (According to the Soviet popular magazine *Ogonek* he was taken from the airport to the Institute of Epidemiology in Moscow with typical initial signs of AIDS. Mononucleosis was, however, diagnosed, and he was discharged in 1983 after prolonged treatment.<sup>2</sup>) Nobody knew anything about AIDS in the USSR at the time that he was released from hospital and returned to his native city (which was not named). Since the summer of 1983 he had had 22 homosexual partners; five of them were found to be HIV positive in 1987, and some had initial signs of AIDS. Three female partners (of 24 tested) and one child were also found to be infected. Three female partners could not be traced, nor could all the male partners of the women positive for HIV. One woman and two men positive for HIV had been blood donors. Five people (two of them children) had been infected by them through blood transfusions. Their blood had also been used to produce immunoglobulin and albumin, but it was suggested that the technology of these processes inactivated the HIV virus. All 15 members of this infection group were under observation (which probably meant in hospital isolation). It is important to note that K was first diagnosed as having Kaposi's sarcoma in 1985. He remained the AIDS index case for nearly 19 months, but in October 1988 a new case of AIDS was diagnosed in Leningrad posthumously. A description of this new case has so far appeared only in the mass media.<sup>3</sup>

Olga L, a worker in the central heating network *Teploenergo* and an evening student in one of the Leningrad colleges, had already died when the samples of her blood taken shortly before her death were tested for HIV and proved positive. She had a long history of many illnesses and had been treated in different Leningrad hospitals many times without being tested for HIV. It seems that she had also worked as a part time prostitute and was well known in the "foreigners" bars of some hotels frequented mainly by Finns (her photograph was later published in some Finnish newspapers).

The Soviet medical industry began to mass produce test kits for HIV infection in 1988. Previously the kits had been made by the volunteer scientific staff of two laboratories of the Institute of Virology.<sup>4</sup> Several other diagnostic systems that had been developed in other institutes proved to be unreliable. At the beginning of

1989 about 17 million people had already been tested. The spokesman for the Ministry of Foreign Affairs, Gennadi Gerasimov, told foreign journalists in January 1989 that the tests had proved positive for 334 foreign visitors and 112 Soviet citizens.<sup>5</sup>

### Outbreak in Elista

A few weeks later the number of Soviet citizens positive for HIV increased by nearly 40% when an outbreak of HIV infection was discovered in the small town of Elista (population 85 000) in the Kalmyk Autonomous Soviet Republic. This cluster was discovered after an investigation in November 1988 of an unusual case of a baby who was found to be HIV positive although both his parents were negative. A team of experts arrived from Moscow's Central Institute of Epidemiology and started wider screening. Within two months 12 000 tests were done.<sup>6</sup> It was established that all the children who were found to be HIV positive had at some point been treated in the same central children's hospital. Their mothers had probably become infected while breast feeding through cracks in the nipple as many of the infected children had stomatitis and bleeding gums. One child positive for HIV has died. At first the number of infected children was 27 and the number of infected mothers was five, but continued screening discovered about one new case per week. At the end of May 1989 the report acknowledged 58 infected children and nine mothers.<sup>7</sup>

The suspected source of infection was provisionally identified as the husband of one of the mothers, who was HIV positive and who had worked in the Congo for several years and had been given a blood transfusion in one of the local African hospitals during emergency surgery. His child, born in Elista, had AIDS and was suspected as the main source of the transmission of the virus within the hospital. A joint medical and criminal investigation found that syringes were routinely reused by nurses without proper sterilisation. The children's hospital, the main paediatric hospital for the whole of the Kalmyk republic (population about 250 000), was notorious for its poor hygiene. It had been fined 13 times in 1988 alone by sanitary inspectors and had experienced outbreaks of hepatitis and salmonellosis. In 1988, 123 children had died in this hospital from various diseases—this was a very high rate for a small town.<sup>8</sup>

The Elista HIV epidemic was taken seriously by the Soviet health ministry. New regulations were introduced requiring all pregnant women throughout the country to have HIV tests. It is not clear why pregnant women were selected as the risk group for mandatory screening. Probably abortions will be done for those found or suspected to be positive for HIV to prevent the birth of children who are HIV carriers. All other hospital patients are also to be tested for HIV. As it is now known that the diagnostic kits produced in the Soviet Union are not very accurate and specific the sharp increase of medical procedures may prove counterproductive. Disposable syringes are still in

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*Br Med J* 1990;300:932-4

short supply in the Soviet Union: the medical service will not have the 3 billion single use hypodermic syringes it needs each year until 1992, in the next five year programme. In 1988 only one million disposable syringes were produced; in 1989, 100 million were promised, but this is still only about 3% of the requirement and hardly enough to provide them to all diabetic patients. The shortage of condoms has also been criticised in the mass media. Only 220 million condoms were produced in 1988—three for each male adult. This branch of industry has also promised to saturate the market in 1992.

### Outbreak in Volgograd

The ministry of health considered the Elista epidemic to be unique in the USSR. Nobody expected a similar outbreak in a large city, but only a few weeks later an epidemic was discovered in Volgograd (about 250 km north of Elista) in the children's section of City Hospital No 7. A general screening of hospital patients found that seven children were infected with HIV. This number had risen to 10 at the beginning of May,<sup>9</sup> and 13 more children and one adult were found infected a few weeks later.<sup>10</sup> The cause of the outbreak was again identified as dirty syringes and needles, but the original source of the HIV virus in Volgograd (a city with a population of more than one million) has not yet been found. All that has been established is that the initial infection was brought to the hospital during the autumn of 1988. The screening is continuing and it is expected that new cases will be found among children who have been in hospitals in Volgograd. Three children infected with HIV have been identified in hospitals in Rostov on Don, one of them, a 10 year old boy, posthumously.<sup>11</sup> They had been treated in different hospitals.

There are many signs that the Soviet health ministry does not have a real picture of the HIV epidemic. The size of the groups at risk is unknown. All Soviet citizens who have worked abroad during the past 10 years have been included in the risk group and have had to be tested. But the strict anti-AIDS legislation passed in 1987 and the threat of lifelong quarantine make it unlikely that those at risk will cooperate with the medical services. The willingness of the police to deal with members of the risk groups has apparently declined as a result of the AIDS panic. Prostitutes are reported to trade openly around many hotels in Moscow and Leningrad without any interference from the police. Neither police stations nor prisons have facilities where potential HIV carriers can be kept, even temporarily.

### Spread of infection

In any case, medical conditions make it impossible to delay or postpone the uncontrolled spread of HIV infection. The dramatic rise in the incidence of hepatitis B infection from 1979 to 1988 indicates this most clearly. In the Soviet Union the incidence of newly diagnosed hepatitis B infection has increased from 13.5 per 100 000 in 1974 to 42.0 per 100 000 in 1987.<sup>12</sup> Between 1980 and 1987 the incidence of hepatitis B doubled, and 52-68% of new infections were linked to medical procedures in hospitals and clinics. Between 12% and 15% of all hepatitis B infections in Moscow were linked to blood transfusions. In 1988 the number of carriers of HBsAg in the USSR was estimated to be 15 million, more than 5% of the population. The situation in Uzbekistan was particularly catastrophic: there the mortality from hepatitis was 5.5 times higher than average. Within hospitals the poor quality of sterilisation and poor screening for antibodies were identified as the main sources of hepatitis B infection.

If hepatitis B was so rampant within the medical service there was nothing to prevent the spread of HIV as well. Experts on hepatitis B in the Soviet Union have for many years advocated introducing single use hypodermics, single use blood transfusion equipment, and other disposable instruments.<sup>13</sup> Despite economic losses from hepatitis B infection estimated to average 629 million roubles a year it required the AIDS panic in 1989 to shake up the medical industry to take some real action in this direction. But it is clear that the Soviet health services are ill prepared for the AIDS epidemic. A substantial reform of the whole medical system and the raising of standards throughout hospitals and for outpatient medical care are necessary if the incidence of blood related viral infections is to be reduced.

### Official reactions

In April 1989 the AIDS epidemic and the necessary measures to limit it were discussed by the Central Committee of the Communist Party of the USSR, which is the real power in the land. A special commission on AIDS, headed by N N Slyunkov, a member of the Politburo, was created. The Soviet leader, Mikhail Gorbachev, in his concluding speech at the April plenary session of the Central Committee strongly criticised several ministries that had imported 30 million disposable syringes, but without needles, so that they were useless.<sup>14</sup>

The minister of health, Evgeny Chazov, acknowledged in a *Pravda* interview on 30 April 1989 that 198 HIV carriers had been identified among Soviet citizens and that six people had developed AIDS, of whom four had died.<sup>15</sup> (These figures did not include the Volgograd or Rostov epidemics.) Chazov indicated that these figures were very low compared with those of the world as a whole, which he cited as totalling five million HIV carriers and 145 000 persons with AIDS. He also said that the Soviet government had allocated additional funds in foreign currency for the import of disposable equipment and diagnostic systems. At the same time an accelerated programme to produce single use syringes and needles would be implemented by the military industry, which would produce at least one billion syringes by the end of 1989 and should be able to satisfy the full requirements of the country by the end of 1990. (This promise proved unrealistic, however: according to an official statistical report published at the end of January 1990, only 192 million single use syringes were produced in 1989, whereas 300 million were imported.<sup>16</sup>) Foreign currency had also been allocated to purchase Western production lines to manufacture condoms and these should be able to satisfy the internal demand by the end of 1990. Six hundred diagnostic laboratories for HIV (and AIDS) would be opened in the national health system, and special regional centres of prophylaxis and treatment of AIDS would also be established and coordinated by the All Union Centre on AIDS.

### Extra training and salary for doctors

Chazov reported that 600 physicians had received special training in diagnosing AIDS and 860 doctors had trained in the clinical treatment of AIDS. These figures should have been doubled in 1989, and 1420 doctors will be working in AIDS diagnostic laboratories and centres and 1600 in hospitals that have to deal with AIDS patients. In 1989, 35 million tests for infection with HIV were expected to be carried out and there would be about 60 million in 1990. All doctors who work in this field will receive a 60% supplement to their salary to compensate for the risk. Chazov acknowledged that medical staff were reluctant to deal

with patients at risk and carry out AIDS tests and that the 25% supplement to their salaries which had been introduced previously was not enough to compensate for the risk factor. A special coordination committee on AIDS, which includes representatives from the State Committee on Science and Technology, the Academy of Sciences of the USSR, the Ministry of Health, the Academy of Medical Sciences, and other organisations, was also created to mobilise the resources of different research systems and to study drugs and vaccines. The scale of these measures reflects the fear that the mass screening for HIV in 1989 and 1990 may present the Soviet health ministry with an unprecedented crisis.

### Isolation of patients

The AIDS epidemic was discussed by some members of the newly elected Soviet parliament, the Congress of People's Deputies, at its first session in May and June 1989. It was clear from the debates that all the infected children and some of their mothers (if they were also infected) were isolated in a special hospital in Moscow. This hospital was described as a derelict school building that had hurriedly been transformed into an epidemiological clinic.<sup>17,18</sup> One report described the infected pregnant women in a special maternity ward there.<sup>19</sup>

Because of the failure of the government to provide sufficient funds to import disposable syringes a special charity fund was established by the popular magazine *Ogonek* with a foreign currency account named anti-SPID (anti-AIDS) to buy syringes and needles abroad. The magazine appealed to Soviet writers, musicians, dancers, sportsmen, and others who might earn foreign currency to donate to this fund.<sup>20</sup> In October 1989 it was announced that six children infected with HIV in Elista had died.<sup>21</sup>

### Continuing problems

In December 1989 V Pokrovsky, president of the Medical Academy of the USSR, reported in *Izvestiya* that the government decision urgently to create specialised AIDS research clinics and to increase the production of single use syringes and other equipment was behind schedule.<sup>22</sup> Only 10 million roubles were allocated centrally for the research programme, and this was inadequate. The accuracy of Soviet made diagnostic kits proved to be low (error rate 10-18%). The Ministry of Health had put before the Supreme Soviet plans for new legislation on measures to prevent an AIDS epidemic to replace the earlier decree of 25 August 1987, which was now considered counter-productive. The previous emphasis on punishment of infected people and the lack of any respect for their rights made cooperation between those at risk and the medical authorities impossible. It was also obvious that the state health service itself had been responsible for most cases of the spread of HIV among hospital patients through poor sterilisation and inadequate control of donated blood. The new legislation was intended to provide complete confidentiality of diagnosis, protect the rights of all patients, and provide some form of compensation if hospitals were respon-

sible for infection. Doctors and other medical staff would be made legally responsible for the quality of medical services. Pokrovsky acknowledged that the elementary rules of injection were ignored in many hospitals and that other instances of the spread of HIV infection between hospitals had been discovered only recently. He did not name the hospitals, probably to avoid local problems.

Academic and medical reports on AIDS and HIV practically disappeared from Soviet journals on virology, epidemiology, molecular biology, and biochemistry in the second half of 1989. This was a sign that strict censorship had been introduced to prevent reporting the results of research on this subject. Pokrovsky suggested that if urgent and wide ranging measures were not introduced immediately the AIDS epidemic in the USSR would very soon be out of control. Within 10 years the number of people infected with HIV could reach one million and there would be nearly 30 000 patients with AIDS in hospitals. Despite pressure from medical authorities for radical measures, however, the state budget for 1990 provided only 53.5 million roubles specifically for expenses related to AIDS in medical research and health services. The domestic production of disposable single use syringes is expected to reach 354.6 million; only 10% of the minimum requirement. There are too many other priorities in the Soviet Union, and the economic crisis, aggravated by the 100 billion rouble budget deficit, does not allow the government to deal properly with problems of public health. It is likely that more attention to the AIDS threat will be paid only in 1992-3, or even later—when (and if) perestroika brings at least some level of economic and political stability.

I thank Dr Margot Light for linguistic and editorial corrections and Ms D Moss for typing and retyping the manuscript.

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(Accepted 19 February 1990)

## ANY QUESTIONS

*Two women with intractable tinnitus have reported that the condition has been alleviated after receiving tetanus toxoid before travelling overseas. What might be the explanation for this?*

If there was any connection between tetanus toxoid injections and changes in tinnitus I would expect it to be for the worse. The mechanism for any possible beneficial effect can be only conjectural, and, so far as I know,

such benefit has not been reported before. Tinnitus is often a labile condition with a tendency to spontaneous exacerbations or remissions. Many events, often coincidental, tend to be associated with the onset or worsening of tinnitus, and occasionally with improvements—these sometimes accounting for the wonder cure that causes so much excitement followed by disillusionment. —R R A COLES, assistant director, MRC Institute of Hearing Research, Nottingham