When Europe's back door stood open

KRONIKK

ANNE METTE ASFELDT
E-post: anne.mette.asfeldt@unn.no
Anne Mette Asfeldt (born 1966), PhD and specialist in infectious diseases. She works as advisory senior infection control officer for Finnmark Hospital Trust at Regional Centre for Infection Control, Department of Microbiology and Infection Control, University Hospital of North Norway. The author has completed the ICMJE form and declares no conflicts of interest.

DRUDE LIND BRATLIEN
Drude Lind Bratlien (born 1968), general practitioner, infection control officer and deputy chief medical officer in Sør-Varanger municipality. The author has completed the ICMJE form and declares no conflicts of interest.

ANITA BREKKEN
Anita Brekken (born 1964), infection control nurse and tuberculosis coordinator at the Centre for Medicine, Clinical Research and Integrated Care, Finnmark Hospital Trust, Kirkenes Division. The author has completed the ICMJE form and declares no conflicts of interest.

NINA ALETTE WIKAN
Nina Alette Wikan (born 1969), infection control nurse for the municipal health services at the Centre for Medicine, Clinical Research and Integrated Care, Finnmark Hospital Trust. The author has completed the ICMJE form and declares no conflicts of interest.

TONE OVESEN
Tone Ovesen (born 1975), nurse, public health nurse and regional tuberculosis coordinator at Regional Centre for Infection Control, Department of Microbiology and Infection Control, University Hospital of North Norway. The author has completed the ICMJE form and declares no conflicts of interest.

KIRSTEN GRAVNINGEN
Kirsten Gravningen (born 1961), PhD and specialist in general practice and medical microbiology. She is regional infection control officer at Regional Centre for Infection Control, Department of Microbiology and Infection Control, University Hospital of North Norway. The author has completed the ICMJE form and declares no conflicts of interest.

In the autumn of 2015, more than 5 000 asylum seekers crossed the border from Russia into Norway. This had a major impact on the town of Kirkenes with its 10 000 inhabitants and one of the country's smallest hospitals. How did the health services of Sør-Varanger municipality and Kirkenes Hospital cope with the challenges involved in ensuring control of tuberculosis and infectious disease in the asylum reception centre and the hospital in such an unprecedented situation?

At 69 degrees north, Norway shares a 196 kilometre-long border with Russia. A permanently monitored fence runs along its entire length on the Russian side. Storskog border station is the only place where crossing the border is possible. Kirkenes is a border town, with Russia to the east and Finland to the south. To the north lies the Barents Sea, and the rest of
Finnmark county extends to the west – sparsely populated, with the next hospital located in Hammerfest, 500 kilometres away.

Throughout history, Sør-Varanger municipality and the people of Kirkenes have experienced different aspects of their proximity to Russia. This has involved the joy of the Russian liberation of the area in the Second World War as well as the uneasiness that prevailed during the Cold War. In recent decades, this proximity has been characterised by increasing cross-border collaboration.

The route through Russia

The first asylum seekers who arrived across the border from Russia in 2015 were sent directly to reception centres in the south of the country, and the health services in Finnmark county were not involved.

When the transit route through Russia became known, the flow of asylum seekers increased. Hans Møllebakken, police chief superintendent in Kirkenes, referred to this as the ‘fast track to Schengen’ in an article in the *Tidsskrift for helsesøstre* (*Journal for Public Health Nurses*) (1). He described how asylum seekers could travel from Damascus to Kirkenes in 48 hours, first by air to Murmansk, then by car and bicycle along well-organised routes. This information was picked up by international media as well as social media that were easily available to refugees looking for a safe destination.

In September 2015, asylum seekers arrived every day, and the flow reached a peak in October/November with up to 200 people arriving daily. Altogether 46 nationalities were represented, with Syrians (30.7%), Afghans (39.7%) and Iraqis (7.2%) as the largest groups (1). The large number of asylum seekers caused Sør-Varanger local council to contact the Directorate of Immigration (UDI) on 4 September, and the following week the parties started a dialogue on establishing a transit reception centre. As a result, the ‘Fjellhallen’ transit reception centre was created.

Receiving refugees is nothing new to Sør-Varanger municipality. The ‘Fjellhallen’ is a sports hall, but also an air raid shelter dating from the time of the Cold War. When the Berlin Wall came down in 1989, the government considered the possibility of a flow of Russian migrants across the border, and contingency plans for a scenario involving 3,000 migrants weekly were prepared. The migrants never arrived. The contingency plans, on the other hand, were used during the Balkan War, when 950 Kosovo Albanians were airlifted from Skopje to Kirkenes and the refugee reception centre in the ‘Fjellhallen’. Sør-Varanger local council could thus easily retrieve the plans for a refugee reception centre from its archives.

The first asylum seekers were received in the ‘Fjellhallen’ on 24 September 2015. Sør-Varanger municipality and Kirkenes Hospital were placed on emergency alert and received daily reports from the police on asylum arrivals. From 24 September to 30 November, altogether 4,994 asylum seekers crossed the Russian-Norwegian border. On 29 November the border police received new instructions from the Ministry of Justice and Public Security, authorising them to refuse entry to persons with no valid visa. On 30 November, the flow of asylum seekers through the Storskog border station came to an abrupt halt.

The ‘Fjellhallen’ and Finnmark Arrivals Centre

In the course of one week, the local council established a well-functioning reception centre with beds for 150–200 people in the ‘Fjellhallen’. A number of measures to ensure appropriate infection control were enacted. All staff members and newly arrived asylum seekers were thoroughly instructed in hand hygiene before they were permitted to enter the hall. Information on toilet hygiene was provided, and the cleaning, especially of toilets and bathrooms, was undertaken to high standards (Figure 1). The changing rooms in the basement were used as isolation wards, for example in cases of vomiting or diarrhoea. The increasing flow of asylum seekers and scarcity of reception centres in other municipalities quickly exhausted the capacity of the ‘Fjellhallen’, and a number of hotels in Sør-Varanger
were utilised.

Figure 1 Information on toilet hygiene at the asylum reception centre in Sør-Varanger municipality

When the 'Fjellhallen' became too small, the Directorate of Immigration converted a former military camp into the 'Finnmark Arrivals Centre', that could receive up to 350 asylum seekers daily. The operation of the centre was outsourced to a private agency, and from 11 November all asylum seekers were received there. The municipal infection control officer provided considerable input for the construction and operation of the arrivals centre regarding the control of infectious diseases, and much of this input was taken into consideration, such as in the establishment of separate isolation wards.

Tuberculosis control

All asylum seekers arriving in Norway must undergo a routine check for tuberculosis. Sør-Varanger local council and Kirkenes Hospital had well-established routines in this area, but the large number of checks required new logistical solutions.

In the autumn of 2015, national tuberculosis guidelines recommended that children under the age of 15 should be checked using a blood test (Interferon Gamma Release Assay, the IGRA test). Adults aged 15–35 should be checked using both an IGRA test and chest x-ray, whereas adults older than 35 years should have only a chest x-ray that should be examined quickly to reveal cases of infectious tuberculosis requiring immediate hospitalisation (2). The Norwegian Institute of Public Health adapted the tuberculosis guidelines by permitting the IGRA test in adults to be delayed, and omitted in people arriving from low-prevalence countries.

The municipal health services are responsible for referring individuals for a tuberculosis check and following up the result, whereas the specialist health service is charged with undertaking the checks. Sør-Varanger local council mobilised considerable additional resources to cope with their workload. Kirkenes Hospital established systems able to examine up to 100 people daily with x-ray and blood tests, a multiplication of the regular activity in the medical services department.
Most of the tuberculosis checks were performed in the afternoons and evenings. The asylum seekers were taken through a side door to the x-ray department, where the blood samples were also collected. The cleaning frequency was stepped up, and information on hand hygiene was provided in the waiting room, in the form of illustrations as well as through an accompanying interpreter.

Altogether 659 IGRA tests and 3,072 chest x-rays were taken, and 3,708 asylum seekers underwent the mandatory tuberculosis check. Most of the work was done on overtime, gradually with the aid of personnel hired in to examine x-ray images. The hospital continued its normal activities in parallel.

Initially, all adults underwent a chest x-ray and an IGRA test, but starting from 29 October the municipal infection control officer in consultation with collaborators at the hospital, the regional centre for infection control and the National Institute of Public Health decided to delay the IGRA testing of adults until they arrived in the municipality where they would be settled, primarily because of the difficulties involved in communicating test results.

MRSA screening

Many asylum seekers arrived from countries with a high prevalence of methicillin-resistant staphylococcus aureus (MRSA). They had lived in cramped conditions, and some had been hospitalised. They therefore fulfilled the criteria for MRSA screening prior to examination and admission to Norwegian hospitals according to the MRSA guidelines from the Norwegian Institute of Public Health.

Screening before the tuberculosis check was impossible, and we therefore appreciated the Institute of Public Health’s specification that appropriate basic infection prevention measures are recommended during simple outpatient consultations when dealing with patients who are suspected of carrying multi-resistant bacteria. Altogether 27 asylum seekers were admitted to the hospital for a variety of causes, all of whom were isolated and screened for MRSA. This accounted for 69 isolation days over two months in a hospital with three contact infection isolation rooms.

Haste makes waste

The Directorate of Immigration was responsible for sending the asylum seekers onward, but encountered problems in finding municipalities that could receive them, and the number of asylum seekers in Kirkenes continued to grow. After three weeks of operations in the ‘Fjellhallen’ there was a critical lack of space, and when an opportunity arose, the police and the Directorate of Immigration sent asylum seekers onward in great haste.

Altogether 1,286 asylum seekers left Sør-Varanger before they had undergone a tuberculosis check, even though the hospital had made provisions for this to be done within two days after arrival (Figure 2). On some weekends, the municipal health services had prepared for several hundreds of referrals, and the hospital had extra personnel on duty. On short notice, however, the checks were cancelled because the Directorate of Immigration had sent onward the newly arrived asylum seekers, rather than those who had already been checked for tuberculosis.
The delayed chest x-ray examinations entailed some consequences. The asylum seekers would sit for up to 24 hours in buses on their way to other asylum reception centres in Northern Norway. Many buses drove in convoy, and there were no records of which asylum seekers travelled on which bus. In the municipalities that received them, this necessitated a lot of time and detective work to find out which of the asylum seekers had undergone the tuberculosis check. The lists of names of asylum seekers reported to the new municipality did not necessarily coincide with those who actually arrived.

In other hospitals under the Northern Norway Health Authority two cases of infectious tuberculosis were detected among the asylum seekers who had been transported onward from Sør-Varanger. These two asylum seekers had been in close contact with numerous people in the asylum reception centre and during the bus ride, and this entailed contact tracing among 140 individuals. If the time had been taken to perform the tuberculosis check in Kirkenes, this could have been avoided.

What did we find, and what did we learn?

**Latent Tuberculosis**

Altogether 13% of all the IGRA tests were positive. This is significantly lower than the global estimate, according to which approximately one-third of the world’s population is infected with tuberculosis (3). We have no representative data on the prevalence of latent tuberculosis in the Norwegian population. A study from 2013 of healthcare workers exposed to tuberculosis showed a positive IGRA test in 3.4% (4), which is likely to be higher than in the less exposed general population. Fewer than 1% of children aged 0–15 (8 out of 910) were proven to have latent tuberculosis and started prophylactic treatment.

**Active Tuberculosis**

Pulmonary tuberculosis was detected in four adult asylum seekers: one in Kirkenes Hospital and three in other hospitals in Northern Norway. This corresponds to a prevalence of 80 per 100 000, which is well above the high-prevalence threshold of 40 per 100 000. One had a tuberculosis strain that was resistant to both isoniazid and pyrazinamide.

**Resistant Bacteria**

Among the asylum seekers admitted to Kirkenes Hospital, altogether 15% were MRSA positive (4 out of 27), a significantly higher prevalence than in the Norwegian population (5).

**Other Communicable Diseases**

The ‘infection isolation wards’ in the ‘Fjellhallen’ and the former military camp were used on several occasions for individual cases of vomiting and diarrhoea. Outbreaks of...
communicable diseases in the hall, where 150–200 people were living at any time, were thus avoided.

Collaboration

Sør-Varanger local council and Kirkenes Hospital demonstrated a considerable ability to innovate as well as strong resolve in a challenging situation. The health services reallocated and stretched their own resources with an extensive use of overtime, so as to minimise the impact on their other functions.

There was already well-functioning collaboration between the municipal infection control officer, infection control personnel at the hospital, the tuberculosis coordinator at the hospital, the regional competence centre for infection control and the Norwegian Institute of Public Health, the benefits of which could be reaped in this extraordinary situation. Between the health services and other agencies (the Directorate of Immigration and the police) there was not always a mutual understanding of the respective points of view. The scale of this challenge was underestimated for too long, both locally and by central authorities.

Information flow or information constipation

In 2010, the World Health Organization (WHO) reviewed the Norwegian tuberculosis control system and described it as an example to be emulated. There was only a single key comment, pointing out the need for better information flow between the health service agencies to ensure follow-up of patients, and by autumn 2015 this had not improved.

At the end of November 2015, nine thick ring binders full of test results were lined up in the municipal health service in the former military camp and could not be forwarded, because no information on the asylum seekers’ whereabouts was available. Only the Directorate of Immigration had any information on the asylum seekers’ next place of residence, and our experience was that they were unwilling to share it with the health services. The comment from the WHO on poor information flow between agencies involved in tuberculosis control in Norway was more relevant than ever before. The communication problems caused delays in the examinations as well as two major contact tracing processes and double requisitioning of tests in the municipality in which the asylum seekers arrived.

What happens next?

The Directorate of Health has now made better provisions for health personnel to trace the whereabouts of asylum seekers, thus to permit the health services that undertake the tuberculosis check to forward test results. Retrieval of test results for asylum seekers who arrive in a new municipality remains complicated. Based on the experience obtained in Finnmark county, we see the need for a central registry of results from tuberculosis checks of asylum seekers.

The asylum traffic across the border at Storskog has come to a complete halt, but the tuberculosis coordinator at Kirkenes Hospital and the municipal health services in Sør-Varanger continue to receive enquiries from tuberculosis coordinators, public health nurses and doctors around the country asking about the results of tuberculosis checks undertaken in Kirkenes.

In Kirkenes, it once again became clear that the proximity with Russia requires dialogue, collaboration and contingency preparedness, across the border as well as within our own ranks.

REFERANSER: