Round table

Tuberculosis in complex emergencies

Rudi Coninx[a]

Abstract This paper describes the key factors and remaining challenges for tuberculosis (TB) control programmes in complex emergencies. A complex emergency is "a humanitarian crisis in a country, region or society where there is total or considerable breakdown of authority resulting from internal or external conflict and which requires an international response that goes beyond the mandate or capacity of any single agency and/or the ongoing United Nations country programme." Some 200 million people are believed to live in countries affected by complex emergencies; almost all of these are developing countries that also bear the main burden of TB. The effects of complex emergencies impact on TB control programmes, interfering with the goals of identifying and curing TB patients and possibly leading to the emergence of MDR-TB. There are many detailed descriptions of aid interventions during complex emergencies; yet TB control programmes are absent from most of these reports. If TB is neglected, it may quickly result in increased morbidity and mortality, as was demonstrated in Bosnia and Herzegovina and in Somalia. TB is a major disease in complex emergencies and requires an appropriate public health response. While there is no manual to cover complex emergencies, the interagency manual for TB control in refugee and displaced populations provides valuable guidance. These programmes contribute to the body of evidence needed to compile such a manual, and should ensure that the experiences of TB control in complex emergencies lead to the establishment of evidence-based programmes.

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Une traduction en français de ce résumé figure à la fin de l'article. Al final del artículo se facilita una traducción al español. الترجمة العربية لهذه الخلاصة في نهاية النص الكامل لهذه المقالة.

In 2004 there were 9 million new cases and approximately 2 million deaths from tuberculosis (TB). Control programmes are difficult at the best of times, but the direct and indirect health and health-system effects of complex emergencies complicate these programmes to such an extent that many organizations choose not to implement them. However, as TB is recognized as a major cause of mortality in long-term complex emergencies, several agencies have taken up the challenge of establishing control programmes in these circumstances. They have met the WHO targets for successful programmes (to detect at least 70% of estimated new smear-positive cases and successfully treat at least 85% of all detected smear-positive cases) without increasing the rates of multidrug-resistant TB (MDR-TB).

This paper describes the key factors and the remaining challenges for successful tuberculosis control programmes in complex emergencies. A complex emergency is defined as "a humanitarian crisis in a country, region or society where there is total or considerable breakdown of authority resulting from internal or external conflict and which requires an international response that goes beyond the mandate or capacity of any single agency and/or the ongoing United Nations country programme."[1] These emergencies are characterized by extensive violence and loss of life; massive population displacement; widespread damage to societies and economies; the need for large-scale, multifaceted humanitarian assistance; political and military constraints that hinder or prevent humanitarian assistance; and significant security risks for humanitarian relief workers in some areas.

Some 200 million people are believed to live in countries affected by complex emergencies. Almost all of these are developing countries which also bear the main burden of TB: approximately 80% of all TB patients live in sub-Saharan Africa and Asia.[2] Humanitarian aid workers all over the world face the major challenge of controlling TB during complex emergencies that affect entire countries (e.g. Afghanistan, Democratic Republic of the Congo, Somalia, Timor-Leste) or parts of a country (e.g. Darfur, southern Sudan).

Situations that affect large civilian populations through war or civil unrest, food shortages and population displacement also result in excess mortality and morbidity. These are caused not only by violence, but also by preventable communicable diseases.[3] Several of the direct and indirect effects[4] of complex emergencies impact on TB control programmes: they interfere with the goals of identifying and curing TB patients, and may lead to the emergence of MDR-TB, thereby compromising – or at least complicating – future control programmes.

There are detailed descriptions of aid interventions during complex emergencies in many countries, including Afghanistan, the Democratic Republic of the Congo,[5] Kosovo,[6] Sudan,[7] and Timor-Leste. However, TB control programmes are absent from most of these reports as humanitarian aid workers

[a] International Committee of the Red Cross, 29 Layards Rd, Colombo 05, Sri Lanka. Correspondence to Rudi Coninx (e-mail: rudiconinx@hotmail.com).
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concentrate on the most obvious killers during the acute phase of a complex emergency: diarrhoeal diseases, measles, acute respiratory infections, malaria and other infectious diseases.[8] As TB is not a visible killer in the acute phase it is rarely a priority in complex emergencies, and often is left for the rehabilitation phase.[9] But complex emergencies include situations of chronic conflict and political instability, often covering entire countries for long periods, and health-care workers are forced to address issues beyond the immediate emergency. If TB is neglected it may quickly result in increased morbidity and mortality, as was demonstrated in Bosnia and Herzegovina[10] and in Somalia.[11] Health-care workers now recognize that TB (also HIV/AIDS) may be responsible for a relatively large proportion of deaths among both adults and children.[12,13] TB is a major disease in complex emergencies[14] and requires an appropriate public health response.[15]

By nature, TB programmes are multifaceted and complex. It is an additional challenge to implement these programmes in emergency situations that affect large numbers of a civilian population. Such situations produce constraints related to poor infrastructure, which is often destroyed; lack of human resources, often themselves affected by the emergency; and difficult logistics, sometimes complicated by security and/or ethnic issues. HIV/AIDS further complicates these programmes, as TB control generally is failing in high-HIV-prevalence settings.[16] Failed treatments or, more frequently and worryingly, indigenous transmission have resulted in more people with MDR-TB. These patients require attention and resources that are rarely available in complex emergencies.

There are now well-established criteria for establishing TB control programmes in emergency situations.[17] Yet often these programmes are postponed until after the acute phase, as it is considered impossible to follow the WHO-recommended DOTS treatment for the detection and cure of TB. This requires six months of treatment and the achievement of high cure rates. The difficult task of running a TB control programme is complicated when there is the chance of aggravating an already serious problem – by introducing or increasing the rates of MDR-TB. The Sphere Project, representing the opinion of many major aid agencies, produced a consensus document intending to set minimum standards.[18] This document says that poorly implemented TB control programmes have the potential to do more harm than good, and warns programme managers about the public health risks of suboptimal programmes, i.e. programmes with < 85% cure rate and fewer than six months of treatment.[19] Programme manuals for refugee situations describe minimal conditions and absolute contraindications for starting TB programmes[20] in refugee settings. Often these are the hallmarks of a complex emergency, e.g. open warfare or a very unstable population, and also valid contraindications.

Public health workers who agree to the International Standards for Tuberculosis Care[21] know the standards against which they will be held accountable. These may be difficult to achieve in situations affected by the constraints typical of complex emergencies. Confronted with requirements for high standards of care and bombarded with warnings about the risks of a suboptimal TB control programme, many aid agencies choose to wait until the situation has stabilized and to concentrate on more obvious and urgent health-care problems. But complex emergencies often last. Is it appropriate to delay when TB prevalence rates exceed 300 per 100 000 per year, and we know that absence of treatment, poor nutrition and general lack of services aggravate the situation?

In complex emergencies health-care workers are faced by TB patients and their problems on a daily basis, and these are difficult to ignore. The several organizations that have decided to take action against TB in such circumstances are reminiscent of the 1980s discussion about treating TB in refugee camps. Purists were alarmed that treating TB could be even contemplated in such inherently unstable situations. It took several bold individuals and several controlled trials to establish beyond doubt that TB could be treated in refugee settings,[22,23] even in rather unstable conditions.[24] These previously controversial practices are now accepted, and these experiences have led to official inter-agency guidelines.[25]

The refugee camp experience underpins the solutions for problems related to the lack of health-care services and the danger of interrupted treatments. Complex emergencies produce a major challenge to set up (or maintain) health-care structures in precarious conditions, often in situations with little or no effectual government. Often it is pointless to ask for political commitment as authorities not only have other priorities, especially in the initial phases of a conflict, but also may be unable to commit resources. Health infrastructures may have been destroyed, or those that remain may have staff with basic training only. TB control is complicated further by the concurrent epidemic of HIV/AIDS and the enforced movement of populations at short notice. Security problems hinder the logistics of supplying medicines and supplies on a regular basis, and make it extremely difficult to follow up patients regularly. Poor coordination between agencies with overlapping health programmes also may further complicate provision of health care.

The reconstruction of TB services has been described in the post-conflict phase as stressing coordination and collaboration[9] or needing international support.[26] Experiences from several ongoing complex emergencies (such as in Afghanistan or the Democratic Republic of the Congo) suggest that the major impediments to establishing national TB control programmes are: mobile populations; destroyed infrastructure; lack of coordination and/or interest in TB treatment; scarce and/or poorly qualified human resources; difficulties with communications and logistical support; and limited financial resources. However, these also suggest possible solutions.

DOTS is the cornerstone of the Stop TB Partnership.[27] Can this five-point programme be applied in complex emergency situations? Certainly, there have been considerable advancements:

- Standardized short-course chemotherapy is now accepted universally. Case-management appears difficult but possible, while alternative treatment regimens are explored and evaluated.[28]
- Progress has been made towards a regular uninterrupted supply of medicines, through increased funding and increased logistical capacities. Difficult-to-reach areas are much better served.
- Case detection through case-finding by sputum-smear microscopy examination of suspected cases has been carried out in complex emergencies.

- Innovative methods for programme supervision and evaluation have been developed.
- Government commitment, usually through a national TB programme, often is initially absent or impossible because of the nature of complex emergencies. Commitment from a lead agency may be a suitable replacement strategy. Health ministries need to be phased in as soon as possible; their absence in the initial phase of an emergency is no excuse for lack of participation at a later date.
- Community involvement strategies have proven their worth; most successful programmes cite the commitment of local communities as a key to success.

Successful TB programmes have been reported from war-torn southern Sudan[29] and during civil strife and post-conflict in Timor-Leste;[30] programmes in Somalia also have reported important successes.[31] The key factors for success in Somalia[32] are remarkably similar to those described in the post-conflict situations:

- visible leadership by one agency
- effective partnerships and collaboration
- strong and flexible management that is adapted locally
- highly motivated individuals
- facilitating social network system and
- active community involvement.

This evidence suggests that it is possible to implement successful TB control programmes in complex emergencies without compromising the success of programmes set up when the emergency phase is over and reconstruction begins. Success is dependent upon several basic principles being upheld and some innovative solutions being applied. There is evidence that success is possible even in the face of an HIV epidemic.[33]

Yet major challenges remain. It is still unclear how to run a successful TB control programme in a complex emergency in the presence of large numbers of HIV-positive patients, with the possible presence of large numbers of MDR-TB patients requiring treatment with second-line drugs (or continuation of pre-existing treatment as current TB programmes include the treatment of MDR-TB cases).

While there is no manual to cover complex emergencies, the interagency manual for TB control in refugee and displaced populations[25] provides valuable guidance as the situations are often similar. These programmes contribute to the body of evidence needed to compile such a manual, and should ensure that the experiences of TB control in complex emergencies lead to the establishment of evidence-based programmes. ■

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Résumé

Tuberculose dans les situations d'urgence complexes

Le présent article décrit les principaux facteurs à prendre en compte et les défis restant à relever pour les programmes de lutte antituberculeuse en situation d'urgence complexe. Une situation d'urgence complexe se définit comme « une crise humanitaire dans un pays, une région ou une société dans laquelle on constate un effondrement substantiel ou total de l'autorité à la suite d'un conflit interne ou externe, et qui demande une réaction internationale dépassant le mandat ou la capacité d'un seul organisme et/ou le programme national des Nations Unies en cours ». On estime que quelque 200 millions de personnes vivent dans des pays touchés par des situations d'urgence complexes, ces pays faisant presque tous aussi partie des nations en développement supportant la plus grande part de la charge de tuberculose. Les situations d'urgence complexes ont un impact sur la mise en œuvre des programmes de lutte antituberculeuse en entravant la réalisation de leurs objectifs, à savoir l'identification et la guérison des malades tuberculeux, et en provoquant parfois l'apparition de tuberculoses à bacille multi-résistant (TB-MR). On dispose de nombreuses descriptions détaillées des interventions d'assistance dans le cadre de situations d'urgence complexes, mais la plupart des rapports ne mentionnent pas la lutte antituberculeuse. Or si l'on néglige cette maladie, elle peut rapidement entraîner une augmentation de la morbidité et de la mortalité, comme cela a été démontré en Bosnie-Herzégovine et en Somalie. La tuberculose est une maladie importante dans ce type de situation et nécessite une réponse de santé publique appropriée. S'il n'existe pas de manuel pour faire face aux situations d'urgence complexes, le document « Lutte antituberculeuse dans les populations de réfugiés : manuel de terrain interorganisations » apporte des conseils précieux. Les programmes de lutte antituberculeuse doivent contribuer à la constitution du corpus de données nécessaire pour élaborer un tel manuel et permettre l'exploitation de l'expérience acquise dans la lutte antituberculeuse en situation d'urgence complexe pour mettre au point des programmes reposant sur des bases factuelles.

Resumen

La tuberculosis en las emergencias complejas

En el presente artículo se describen los factores clave de los programas de control de la tuberculosis (TB) en las emergencias complejas y las dificultades a superar en ese terreno. Se entiende por emergencia compleja «una crisis humanitaria en un país, una región o una sociedad donde hay un derrumbamiento total o considerable de la autoridad debido a un conflicto interno o externo y que exige una reacción internacional que va más allá del mandato o la capacidad de un solo organismo y/o del programa en curso de las Naciones Unidas para el país». Se calcula que hay unos 200 millones de personas que viven en países afectados por emergencias complejas; casi todos ellos son países en desarrollo que arrostran también la mayor carga de tuberculosis. Las emergencias complejas repercuten en los programas de lucha antituberculosa, interfiriendo con las metas de identificación y curación de los enfermos de tuberculosis y favoreciendo posiblemente la aparición de tuberculosis multirresistente. Se han descrito con detalle muchas intervenciones de ayuda en emergencias complejas, pero en la mayoría de esos informes no se habla de los programas de lucha antituberculosa. Hacer caso

omiso de la tuberculosis puede entrañar un rápido aumento de la morbilidad y la mortalidad, como ya se vio en Bosnia y Herzegovina y en Somalia. La tuberculosis es una enfermedad importante en las emergencias complejas y requiere una respuesta de salud pública apropiada. Aunque no hay ningún manual para hacer frente a las emergencias complejas, el manual interinstitucional para el control de la tuberculosis en las poblaciones de refugiados y desplazados proporciona una valiosa orientación. Esos programas aportan parte de la evidencia necesaria para compilar un manual de ese tipo, y deberían asegurar que las experiencias de control de la tuberculosis en emergencias complejas conduzcan al establecimiento de programas basados en datos fehacientes.

ملخص

السل في حالات الطوارئ المعقدة

تتناول هذه الورقة بيان العوامل الرئيسية والتحديات التي لا تزال تواجه برامج مكافحة السل في حالات الطوارئ المعقدة. وتعرِّف حالة الطوارئ المعقدة بأنها «أزمة إنسانية في بلد أو إقليم أو مجتمع، تعرضت سلطاتها لانهيار كامل أو جسيم من جراء نزاع داخلي أو خارجي، بحيث تتطلب هذه الأزمة استجابة دولية تتجاوز ولاية أو قدرة أي وكالة واحدة بمفردها أو قدرات برنامج الأمم المتحدة المنفَّذ في البلد». ويعيش حوالي 200 مليون شخص في بلدان متأثرة بأوضاع الطوارئ المعقدة، معظمها من البلدان النامية التي أثقل السل كاهلها. وتؤثر حالات الطوارئ المعقدة على برامج مكافحة السل، كما أنها تتداخل مع أهداف تشخيص ومعالجة مرضى السل، مما قد يؤدي إلى ظهور السل المقاوم لأدوية متعددة. وهنالك العديد من التوصيفات المفصلة لتدخلات المساعدة أثناء حالات الطوارئ المعقدة؛ غير أن الملاحظ أن برامج مكافحة السل غائبة من معظم هذه التقارير. فإذا أُهمل السل، فقد يعجِّل بزيادة المراضة ومعدل الوفيات، على نحو ما حدث في البوسنة والهرسك، وفي الصومال. فالسل مرض له أهمية كبرى في الطوارئ المعقدة ويتطلب تدخلاً صحياً مناسباً. ونظراً لعدم وجود دليل إرشادي يغطي حالات الطوارئ المعقدة، فيمكن الاسترشاد بالدليل المشترك بين الوكالات والمعني بمكافحة السل بين اللاجئين والمشردين. فبرامج مكافحة السل تسهم في توفير مجموعة البيِّنات اللازمة لإعداد مثل هذا الدليل، ومن ثمَّ ينبغي أن تضمن أن تؤدي الخبرات المكتسبة من أنشطة مكافحة السل في الطوارئ المعقدة إلى إنشاء برامج مسندة بالبينات.

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