MSF Southern Africa Scientific Day, 14 May 2015 Harare, Zimbabwe

MEDECINS SANS FRONTIERES

Agenda MSF Southern Africa Scientific Day

09h00 – 09h10 **Opening remarks**
Garret Barnwell: MSF Southern Africa President

09h10 – 09h20 **Key note address**
Ministry of Health and Child Care (To be advised)

09h20 – 11h20 **Session 1**
Chairs: Dr Helen Bygrave, HIV /TB Advisor Southern Africa Medical Unit, Tom Decroo

- Emerging challenges in HIV/TB implementation
Reaching undetectable : The test is not enough
Viral load monitoring: how do HIV-positive patients interpret and understand their results?
Veli Shiselweni, Swaziland (OCG)

- Scaling up viral load in rural Zimbabwe : Another cascade to tackle
Munyaradzi Dhodho: Buhera and Gutu Zimbabwe (OCB)

- Managing children and adolescents with HIV treatment failure: results from a pilot project in Khayelitsha
Nompumelelo Mantangane: Khayelitsha South Africa (OCB)

- ***Putting the patient at the heart of ART delivery: The role of alternative ART delivery models***
Emilie Venables : Kibera Kenya

Medication Adherence Clubs for HIV and Non Communicable Disease (NCD) patients in an informal setting in Kibera, Kenya
Emilie Venables : Kibera Kenya

Changing the face of DRTB treatment
9 month Short course MDR TB treatment in HIV and non-HIV co-infected patients in Swaziland: interim outcomes of 2 prospective studies
Maria Nnambalirwa : Swaziland (OCA)

11h20-11h50 **Tea Break**
All

11h50 – 13h50 **Session 2**
Chair: Tom Decroo

- Getting involved in cancer: is that for MSF?
Implementing a Cervical Cancer Screening and Treatment Programme – Lessons Learned from Zimbabwe
Jakob Arhem Epworth Zimbabwe (OCA)

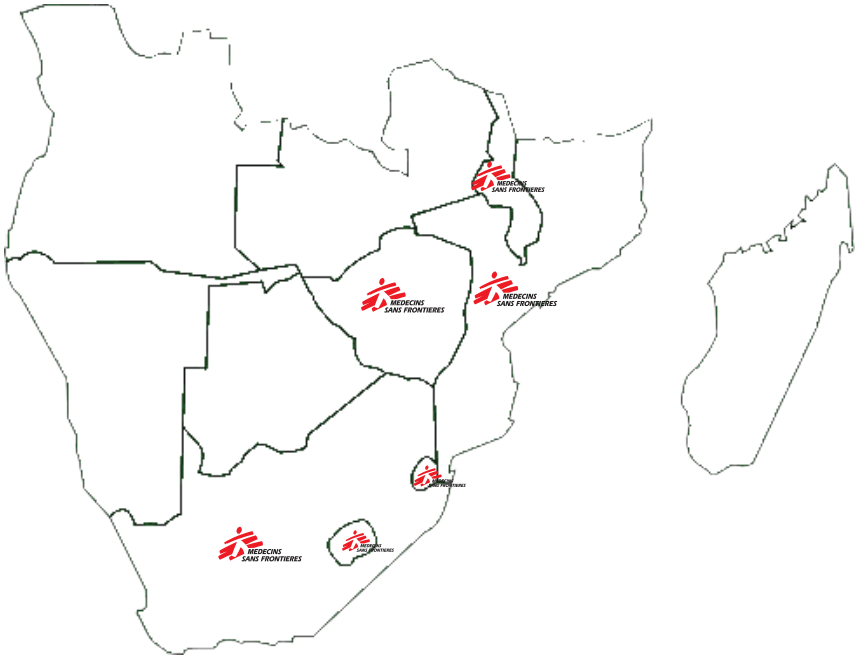
· **- Addressing sexual violence in MSF programmes**
One size fits all? Standardised provision of care for survivors of sexual violence in conflict and post-conflict contexts in sub-Saharan Africa
Kuziva Kuweni (OCB)

· **- Looking at MSF's response to Ebola: Bringing the medical and community response together**
Patient characteristics and risk of mortality in the MSF Ebola Management Centres during the West African Ebola outbreak: a multicentric study
Gilles van Cutsem on behalf of the Ebola Task Force (International)

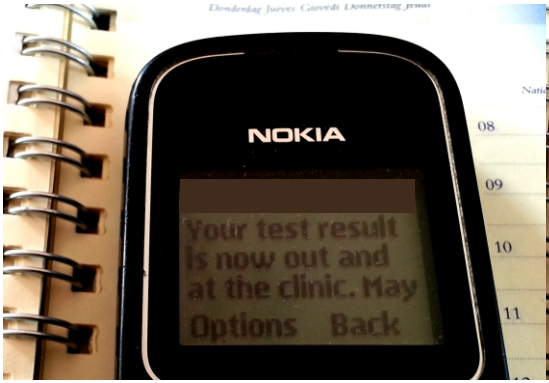
· State-enforced Ebola containment measures in Liberia: A view from the communities
Umberto Pellecchia Liberia (OCB)

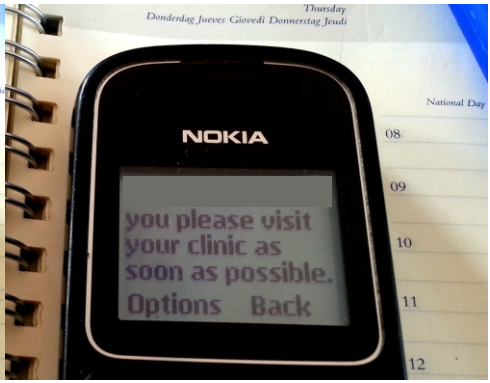
13h50 – 14h50 **LUNCH**

14h50 onwards Tour of the exhibition stand and posters
All



Viral load monitoring for HIV positive patients in Shiselweni, Swaziland: interpretations and understanding of detectable or undetectable results





Authors:
Shona Horter1, Lobenguni Simelane-Mahlinza2, Tatiana Kourline2, Bernhard Kerschberger2, Beverley Stringer1

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Ethics statement:
Ethics approval was obtained for this study from the Swaziland Scientific and Ethics Committee and the MSF Ethics Review Board prior to study commencement

Background: Viral load (VL) monitoring can be used to reinforce antiretroviral therapy (ART) adherence support and prevent treatment failure through earlier identification of second line treatment need. The potential disinhibitory effect of known undetectable VL is of concern. Routine VL monitoring for patients on ART has recently been implemented across Shiselweni, Swaziland, including stepped-up counselling for those with detectable VL. This qualitative study aims to examine the views and experiences of patients regarding VL monitoring.

Methodology: A purposive sample recruitment strategy was used to include patients with varied VL results from a larger cohort within a VL monitoring study. Semi-structured interviews were conducted (n=18) based on topic guides, and transcripts were analysed thematically to identify emergent codes, patterns (including deviances from majority themes) and concepts from participant responses, using Nvivo 10 as an analytic aid.

Results: Participants identify VL increase resulting from perceived ineffective treatment, inadequate food and emotional difficulties. They claim adherent treatment-taking and express confusion and upset over the potential cause of VL increase. Participants receive limited information about VL during clinic visits and have greater familiarity with CD4 count monitoring. Health practitioner attitudes are often described as accusatory and judgemental, with assumed patient non-concordance. This perceived judgement and blame adds to patients' confusion over their VL changes and undermines a supportive relationship or patients' ability to come forwards with potential challenges. An undetectable VL result is seen as positive affirmation that treatment is working, with participants feeling happy and that "they are doing things right". VL monitoring reportedly motivated condom use through reminding of its importance, with undetectable VL not described as increasing riskier sexual practices. However, females can have limited influence in condom negotiation.

Conclusion: This study suggests that while patients accept VL monitoring, there is need for more information about it, and VL monitoring can be used to reinforce hierarchical practitioner-patient relationships. Careful training of health practitioners on communication is essential pre-roll out. Participants' discussion of non-adherence may have been hindered by associating the research team and health programme. Further investigation into the causal factors for high VL is needed, whether related to non-adherence or treatment resistance.

Scaling up access to second line antiretroviral therapy in rural Zimbabwe : Impact of routine viral load, model of care and re-suppression after switch.

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Introduction: In many resource-limited settings, access to second-line antiretroviral therapy (ART) is centralised at district or national level, and is prescribed only by doctors. After implementing routine viral load (VL) monitoring in two rural districts in Zimbabwe in 2012, switching of patients to second-line ART and their follow-up was decentralised to all primary care clinics, and carried-out by a multidisciplinary team.

Methods: Information was extracted from patient and laboratory records and analysed to assess virological response to second-line ART. The analysis used data from 358 patients with confirmed virological failure, who switched to second-line ART between June 2008 and November 2014. Binary logistic regression was used to identify factors associated with a poor virological response.

Results: Second-line ART initiations increased from 13 in 2011 to 243 in 2014. Of the patients in the analysis 58.0% were female; with a median age of 33 years; a median time on first-line ART of 3.7 years; and a median follow-up after switching of 42.7 weeks. The median pre-switch VL was 30,940 copies/ml (IQR: 12,285 – 88,000), with 22.6% having a VL of >100,000 copies/ml. Of 196 patients retested 3 to 6 months after switching to second-line ART, 72.5% re-suppressed to <1,000 copies/ml, and an additional 11.7% had a $\geqslant$1.0 log drop in VL. At the most recent test, 72.9% had a VL <1,000 copies/ml. Of those who initially re-suppressed and had a subsequent VL test, 17.7% had viral rebound. Patients were significantly less likely to re-suppress if they were <15 years old (adjusted risk ratio [aRR]: 2.56; 95% CI: 2.00 – 3.28); female (aRR: 1.57; 95% CI: 1.23 – 2.01); had an initial VL $\geqslant$50,000 copies/ml versus <10,000 copies/ml (aRR: 1.67; 95% CI 1.10 – 2.54); or switched <3 years versus 3 – 5 years after starting ART (aRR: 1.63; 95% CI: 1.25 – 2.13).

Conclusions: Although the majority of patients responded to second-line ART, a sizeable minority had an inadequate response. This illustrates the importance of ongoing VL monitoring and adherence counselling for patients on second-line ART. Children and adolescents are at particular risk of ongoing adherence challenges, resulting in a poor response to second-line ART.

Managing children and adolescents with HIV treatment failure: results from a pilot project in Khayelitsha

Jonathan Bernheimer, Gabriela Patten, Gilles van Cutsem, Amir Shroufi, Thembisa Makeleni, Nompumelelo Mantangana, Nobasa Dumile, Vivian Cox

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Introduction

As HIV treatment programmes mature in Southern Africa, increasing attention has been given to adults failing antiretroviral treatment (ART). In contrast, despite reported high paediatric treatment failure rates, high viral loads (VL) in children are often not addressed.

A pilot programme was introduced to identify and care for children failing ART at two Department of Health primary-care clinics in Khayelitsha. The programme consists of support groups, individual consultations, home visits, and genotyping to guide regimen switches when viraemia persists despite 3 months of adherence support.

We conducted a retrospective analysis of programme data with the aim of determining the effect of the programme on re-suppression rates and risk factors for treatment failure.

Methods

Patients aged 0-19 years enrolled between July 2013 and November 2014 with last VL>1000 copies/μl or last two VL>400 were included. Routine data on ART regimens and VLs was used.

VLs were performed every 3 months. Re-suppression was defined as VL<400. Ethics approval was obtained from the University of Cape Town; the study met the MSF Ethics Review Board criteria for exemption from ethics review.

Results

Of 131 patients, median age at enrolment was 10 years (IQR 4.2-13.8); 60 (46%) were girls. Median time on ART was 4.0 years (IQR 2.6-7.6). VL suppression at first, second, and third follow-up VL was 55% (58/105), 72% (55/76), and 84% (38/45) respectively.

Patients >12 years were less likely to re-suppress than those <12 (67% [10/15] vs. 93% [28/30], p=0.02). 77% (36/47) on protease inhibitor (PI)-based regimens re-suppressed at their second VL without switching, compared with 28% (7/25) on non-nucleoside reverse-transcriptase inhibitor (NNRTI)-based regimens.

Of those switched from NNRTI to PI regimens, 40% (10/25) re-suppressed. Of 34 genotypes, 43% (6/14) and 100% (20/20) were resistant to PI and NNRTI regimens, respectively.

Conclusions

Children failing ART should be identified and supported in HIV programmes with simple interventions that can lead to high rates of re-suppression. Most children failing NNRTI regimens showed resistance and required switching to PI regimens.

Conversely, most children on PI regimens re-suppressed with adherence support, indicating the regimens' robustness and the potential benefit of adopting WHO recommendations for first line PI-based regimens for children.

Adolescents in the programme required innovative strategies to attain re-suppression. Patients resistant to PIs await third-line ART availability.

"It's not just about giving the drugs": Medication Adherence Clubs (MACs) for HIV and non-communicable disease (NCD) patients in an informal setting in Kibera, Kenya

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Introduction

Increasing numbers of patients require care for chronic conditions such as hypertension (HT), diabetes mellitus (DM) and HIV infection. In 2013, MSF and the Kenyan Ministry of Health introduced Medication Adherence Clubs (MACs) as an alternative to standard care for stable HT, DM and HIV patients in Kibera, Nairobi.

MACs enable groups of up to 30 HIV/non-communicable disease (NCD) patients to collect medication refills every 3 months. This is the first integrated approach to chronic disease medication in MSF programmes.

A mixed-methods analysis was conducted to explore the feasibility and acceptability of MACs. Ethics approval was received from Kenyan AMREF and the MSF Ethics Review Board.

Methods

Routine data from a primary health-care clinic in Kibera were analysed to determine the characteristics of MAC patients and the number of MAC meetings held from August 2013-August 2014.

In 2015, 19 in-depth interviews and 10 focus group discussions were conducted with health-care workers and patients to assess MAC acceptability and views around combining HIV, DM and HT patients.

MAC and non-MAC patients were randomly selected from MAC groups and clinical records and a purposive sample of health-care workers recruited to represent a range of professions and variety of experience with MACs. Qualitative data collection ended when saturation was reached. Qualitative data were transcribed and a coding framework developed before analysis using NVivo (version 10, 2012).

Results

Of 5028 HIV/NCD patients, 44% were eligible and 1432 (64%) then enrolled in MACs. 43 (2%) were referred back to clinical care. 109 MAC meetings were held, representing 2208 individual refills.

Most (64%) MAC members were female; 71% were HIV-positive. MACs were perceived as acceptable, time-saving, and a source of disease information and peer-support by HIV-positive and NCD patients. Implementation challenges included recruitment, patients' understanding of MACs, and the timing of sessions.

A small number of non-NCD, HIV-positive patients felt mixed groups affected disclosure but this was not considered a problem for NCD patients.

Conclusions

MACs combining HIV and NCD patients can enable the provision of medication and peer-support to large numbers of stable, chronic patients by applying lessons learned from large-scale HIV drug rollout.

As HIV and NCD care are further scaled up, innovative refill strategies such as MACs should be considered in other contexts.

9-month, short-course MDR-TB treatment in HIV and non-HIV co-infected patients in Swaziland: interim outcomes of a prospective study

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Introduction

The WHO-recommended treatment regimen for multidrug resistant tuberculosis (MDR-TB) is lengthy, toxic, and has only a 54% success rate. A success rate of 84% has been reported for a 9-11 month regimen in Bangladesh but evidence for this regimen is lacking in high MDR-TB and HIV co-infection settings. MSF, with the Ministry of Health, is using the short-course regimen in 2 MSF-supported ambulatory care DR-TB sites in Swaziland. We present interim outcomes of a prospective, observational study of the safety and effectiveness of short-course MDR-TB treatment.

Methods

We analysed outcomes from January 2014 – January 2015. All consenting MDR-TB patients diagnosed using molecular genotypic tests (GeneXpert) or culture/drug susceptibility testing (MGIT) were included. Outcomes are defined according to pre-2013 WHO definitions. Toxicity of TB drugs was documented with Division of AIDS (DAIDS) grading. Ethics approval: MSF Ethics Review Board (ERB) and the ERBs of Swaziland.

Results

Characteristics of the 57 Swaziland patients: median age 35 years (IQR 28 – 43), 23 (40%) male, 42 (74%) HIV-positive and 46 (81%) new cases. Outcomes at analysis: 39 (68%) on treatment, 10 (18%) cured, 6 (11%) died, 2 (4%) treatment failure, and none lost to follow-up. Outcomes among HIV patients: 29 (69%) on treatment, 6 (14%) cured, 6 (14%) died, and 1 (2%) treatment failure. Culture conversion after 4 months of treatment was 94% (91% among HIV-positive patients). Severe adverse events grade 3 and 4 occurred in 13 (23%) and 5 (9%) patients respectively. 3 patients experienced severe ototoxicity. ECG at 4 weeks: median QTc increase of 16.5 ms.

Conclusions

The short-course regimen had satisfactory interim outcomes in a high HIV co-infection and drug-resistant TB setting. Safety, including the first ECG data reported for this regimen was also satisfactory. Determining the rate of relapse within one year of treatment completion will provide a clearer picture of the effectiveness of the regimen.

Implementing a cervical cancer screening and treatment programme — lessons learned from Zimbabwe

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Background

The annual incidence of cervical cancer in Zimbabwe is 34.5 per 100,000 women and presumably higher among HIV-infected women. The ministry of health (MoH) has started offering cervical cancer screening, but it is currently available only at central hospitals and a few other sites.

Project

MSF is running a project in Epworth, Harare, providing HIV/TB services additional to the MoH programme. In June 2013, MSF added cervical cancer screening through visual inspection with acetic acid and cervicography (VIAC). HIV-positive, sexually-active women attending one of the supported clinics in Epworth were encouraged to undergo screening. If pre-cancerous lesions were identified, they were offered cryotherapy on site or referral for loop electrosurgical excision procedure (LEEP) depending on lesion size/extent. The receiving facility ordered pre-procedure biopsy for referred patients according to their protocols. Support with training, guidelines, protocols, and quality control has been provided by an experienced clinic (Newlands – run by Swiss AIDS Care International). We reviewed the first 18 months of programme data with the aim of approximating the rates of cancerous and pre-cancerous cervical lesions and determining the effectiveness of this programme.

Outcomes/lessons learned

From June 2013 to December 2014, 3330 first screenings and 399 re- and follow-up screenings were performed. From June 2013 to July 2014, 280 of 2629 screenings (10.7%) resulted in a suspicion of pre-cancerous lesions. From August to December 2014, the corresponding figures were 327 of 1100 (29.7%). The increase is probably a result of staff training by Newlands in July. Overall, 633 (17.0%) screenings showed lesions: 342 requiring cryotherapy, 265 requiring referral for LEEP, and 26 clinically consistent with cancer. At January 2015, only 200 (58.5%) and 25 (9.4%) women requiring cryotherapy or referral for LEEP, respectively, had received treatment. 52 of the 265 (19.6%) women referred for LEEP underwent pre-LEEP biopsy and histological examination: 29 (56%) had neoplasia grade 2-3 and 2 (3.8%) had cancer.

Conclusions

The high rates of pre-cancerous and cancerous lesions demonstrate the need for a screening programme in this setting. Our findings emphasise the importance of proper training of the involved staff. There is also need to ensure that both cryotherapy and LEEP are readily available.

One size fits all? Standardised provision of care for survivors of sexual violence in conflict and post-conflict contexts in sub-Saharan Africa

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6: Ministry of Health and Social Welfare, Monrovia, Liberia
7: Médecins Sans Frontières – Operational Centre Brussels, Medical Department, Brussels, Belgium
Rafael Van den Bergh
MSF – Operational Centre Brussels

INTRODUCTION: Outcomes of sexual violence (SV) care programmes vary by profile of survivors, type of violence suffered, and local context. Documentation and analysis of existing SV care services could lead to their better adaptation to the survivors' needs and local contexts. We therefore set out to document the Médecins Sans Frontières SV programmes in an urban setting of post-conflict (Bushrod Island, Monrovia, Liberia), a rural zone of post-conflict (Niangara, Haut-Uélé, Democratic Republic of Congo [DRC]), and in a zone of active conflict (Masisi, North Kivu, DRC)

METHODS: A retrospective descriptive cohort study, using routine facility-based programmatic data from the MSF SV programmes in Monrovia, Liberia over the years 2008 and 2009, and in Masisi and Niangara, DRC, over the year 2012. The three sites implemented the same standardised package of care: the only differences between programmes were at the level of health promotion and awareness raising.

RESULTS: In the active conflict context of Masisi, 491 survivors of SV presented for care, compared to 180 in the rural post-conflict setting of Niangara and 1500 in the urban post-conflict setting of Monrovia. Niangara and Monrovia saw predominantly SV perpetrated by civilians known to the victim (48% and 69% respectively) and directed against children and adolescents (median age 15[IQR 13-17] and 13[IQR 9-17] respectively) while SV in Masisi was more directed towards adults (median age 26[IQR 20-35]), and was characterised by marked brutality, with higher levels of gang rape, weapon use, and associated violence; perpetrated by the military (51%).

Only 60% of the patients in Masisi, 32% in Niangara and 41% in Monrovia arrived for a consultation within the critical timeframe of 72 hours. Survivors were predominantly referred through community programmes in all settings. Treatment characteristics at first contact were typically positive, with high (>95% in DRC, 78-90% in Monrovia) coverage rates of prophylactic interventions. However, follow-up was poor: 49% of all patients in Masisi and 61% in Niangara returned for a follow-up consultation, and treatment and/or vaccination completion rates remained low.

CONCLUSION: A study limitation was the facility-based nature of the work, precluding an analysis of those survivors who did not reach the MSF clinics. The study has identified a number of gaps in standardised sexual violence programmes in MSF, such as low follow-up rates, differences between settings (military aggression versus civilian abuse of minors) which may require tailoring of the programmes, and poor awareness of the need to present within 72 hours. Strengths of the programmes included high coverage of prophylactic interventions. Our findings may contribute to future models of context-specific SV programmes.

ETHICS: Ethics approval was obtained from the MSF Ethical Review Board, Geneva, Switzerland (exemption granted for the DRC studies), the Comité d'Ethique de l'Ecole de Santé Publique de l'Université de Kinshasa, DRC, and the Liberian Biomedical Research Ethics Committee.

CONFLICT OF INTEREST: None

FUNDING: MSF-Luxembourg, Operational Centre Brussels

Patient characteristics and risk of mortality in the MSF Ebola Management Centres during the West African Ebola outbreak: a multicentric study

The MSF Ebola Task Force; with acknowledgment of the thousands of field staff involved in the Ebola response

Introduction

The Ebola virus disease (EVD) outbreak, ongoing in West Africa since March 2014, is the largest in history. A major activity of MSF has been providing patient care in Ebola Management Centres (EMCs). MSF EMCs were set up progressively in the three most affected countries: two in Guinea in March, two in Liberia in August, and four in Sierra Leone between June and December. We present a retrospective analysis of the main characteristics of patients admitted to eight of the nine MSF EMCs operational in January 2015.

Methods

Retrospective descriptive analysis was performed on a pooled line list on common variables collected. Univariate and multivariate logistic regression estimates were used to explore factors associated with the risk of dying (centre of admission, age, sex, time to admission). This retrospective analysis of existing routinely collected programme data met the MSF Ethics Review Board criteria for exemption from ethics review. All activities conducted by MSF were approved by the national authorities of Sierra Leone, Liberia, and Guinea.

Results

By January 25th, 2015, 7911 people with EVD suspicion had been admitted to an MSF EMC. 4843 (61%) were confirmed with EVD. Among confirmed cases, 2206 (46%) were aged 5-29 years, 1995 (42%) were aged 30-59 years, and 265 (6%) were <5 years. Median time to admission was 5 days (IQR 3-7). The overall case fatality rate (CFR) was 51%. CFR varied significantly between centres, but globally decreased over time, reaching 45% for patients admitted in December 2014. In multivariate analysis, risk of dying was increased in children <5 years (OR 2.8, 95%CI 2.1-3.9) and patients over 30 years (30-59 years: OR 1.6, 95%CI 1.4-1.9; $\geqslant$60 years: OR=2.8, 95%CI 2.1-3.6). Delay in admission was not associated with risk of dying. Viral load data will be presented.

Conclusions

This Ebola outbreak is unprecedented, leading to an unprecedented response from MSF. Harmonization and completeness of inpatient information, including clinical presentation of patients with EVD, consequently remain a great challenge. Little evidence is available regarding factors associated with death and recovery: further research and capitalisation of the interventions are needed to better understand this disease.

State-enforced Ebola containment measures in Liberia: a view from the communities

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Introduction

In the Ebola virus disease (EVD) outbreak in Liberia, two major emergency disease-control measures were enacted: cremation of bodies and enforcement of quarantine for asymptomatic individuals suspected of contact with a positive case.

Enforced by State-related actors, these measures were promoted as the only way to curtail transmissions swiftly.

A qualitative study was undertaken to determine how these measures were perceived by communities in Liberia and their social consequences.

Methods

Research was conducted in two phases, for a total of 8 weeks. An ethnography of local practices was carried out in eight neighbourhoods in Monrovia and seven villages in Grand Cape Mount County as well as 32 focus group discussions (391 participants) and 22 semi-structured interviews.

Participants were randomly selected from social strata. The principal investigator worked with two local assistants. Perceptions and practices were analysed thematically.

This study was approved by the MSF Ethics Review Board through pre-emptive clearance of qualitative research in Ebola interventions. All activities conducted by MSF were approved by the national authorities of Liberia.

Results

Liberia's mandatory cremation of bodies and forced quarantine had disastrous social consequences.

Participants stressed how the former perpetuated social breakdown that started with the isolation of the sick person from social and family ties.

Socio-economic divides were created by inequitable management of the dead: those who could bribe the burial teams obtained a burial in a private cemetery or the use of Funeral Homes.

Conversely, those in economic disadvantage were forced to send their dead for cremation. Quarantine created condemnation, stigmatization, and socio-economic distress. Food was distributed intermittently, and some houses shared latrines with non-quarantined neighbours.

Escapes were also recorded. Informal medicine providers (e.g. drug sellers), more mobile than the conventional health system, provided assistance for minor illnesses.

Participants narrated how they adopted local measures of containment, through local task forces, and control of movements of outsiders.

They also stressed how lack of reliable and continuous health promotion information built up rumours and suspicion.

Conclusions

The Ebola-affected populations felt a high degree of social insecurity, in addition to experiencing health hazards. Vertical and coercive measures increased mistrust and fear, and were counter-productive in the containment of the epidemic.

Local communities were willing to be engaged and participate in the Ebola response with a high degree of flexibility. Efforts to increase awareness and community involvement could prove a better strategy in epidemic control, with a response rooted in social participation.

Introduction of a routine viral load algorithm in rural Zimbabwe: Programmatic strategies for implementation and impact on second line needs

Y. Htung Naing1, H. Bygrave2, S. Simons1, D. Munyaradzi1, C. Metcalf2

1Medecins sans Frontieres, Harare, Zimbabwe, 2Medecins Sans Frontiere, Southern Africa Medical Unit, Cape Town, South Africa

Introduction: In 2012, routine viral load (VL) monitoring was implemented among 14,000 patients on antiretroviral therapy (ART) in 26 clinics in Buhera district Zimbabwe, assisted by a mobile mentorship team. Dried blood spots were tested using the bioMérieux NucliSENS assay. Patients with a VL >1,000 copies/ml received enhanced adherence counselling (EAC), including completion of a high viral load form and VL repeated after three months. Those with a persistently high VL were switched to second-line ART. Implementation of the algorithm was assessed in 2014.

Methods: Data were extracted from patient folders, electronic medical records, counselling registers and a laboratory database, and combined to assess adherence to the VL algorithm between March 2013 and September 2014. Virological outcomes were assessed by patient age and time on ART.

Results: 4661 patients were included in the analysis. Coverage of routine annual VL testing was 92.0%. Of those tested in the previous year, 13.9 % had a VL >1000 copies/ml. A VL >1000 copies/ml was more common in children <15 years (32.3 %; 95% CI: 29-35%) than those aged ⩾15 years (14.0 %; 95%CI: 13-15%), but showed little variation by time on ART (13.8% at 3 months, 14.9% at 12 months, 15.3% at 24 months, and 12.3% at 36 months on ART). Of those eligible, 57.4 % had documented evidence of EAC and 67.8% had a repeat VL test. Of those retested, 43.1% re-suppressed, and 36.9 % (1.1 % of all those tested) were switched to second-line ART.

Conclusions: Routine VL testing is feasible in resource-limited settings. Monitoring and evaluation of adherence to the VL algorithm is essential in order to ensure appropriate response to high VL results. Essential components of implementation include patient education, clinician training on the VL algorithm, task-shifting of sample preparation, provision of EAC, and decentralisation of access to second-line ART.

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Introduction

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Methods

Retrospective descriptive analysis was performed on a pooled line list on common variables collected. Univariate and multivariate logistic regression estimates were used to explore factors associated with the risk of dying (centre of admission, age, sex, time to admission). This retrospective analysis of existing routinely collected programme data met the MSF Ethics Review Board criteria for exemption from ethics review. All activities conducted by MSF were approved by the national authorities of Sierra Leone, Liberia, and Guinea.

Results

By January 25th, 2015, 7911 people with EVD suspicion had been admitted to an MSF EMC. 4843 (61%) were confirmed with EVD. Among confirmed cases, 2206 (46%) were aged 5-29 years, 1995 (42%) were aged 30-59 years, and 265 (6%) were <5 years. Median time to admission was 5 days (IQR 3-7). The overall case fatality rate (CFR) was 51%. CFR varied significantly between centres, but globally decreased over time, reaching 45% for patients admitted in December 2014. In multivariate analysis, risk of dying was increased in children <5 years (OR 2.8, 95%CI 2.1-3.9) and patients over 30 years (30-59 years: OR 1.6, 95%CI 1.4-1.9; $\geqslant$60 years: OR=2.8, 95%CI 2.1-3.6). Delay in admission was not associated with risk of dying. Viral load data will be presented.

Conclusions

This Ebola outbreak is unprecedented, leading to an unprecedented response from MSF. Harmonization and completeness of inpatient information, including clinical presentation of patients with EVD, consequently remain a great challenge. Little evidence is available regarding factors associated with death and recovery: further research and capitalisation of the interventions are needed to better understand this disease.

Notes

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