

# Illicit drug addiction, infectious disease spread, and the need for an evidence-based response

The saddest aspect of life right now is that science gathers knowledge faster than society gathers wisdom.

*Isaac Asimov*

Harm reduction, a public-health philosophy for addressing the effects of illicit drugs, is based on the pragmatic goal of reducing disease and death without first requiring abstinence from drug use.<sup>1</sup> Although a large and growing volume of scientific evidence has consistently shown a benefit of harm reduction programmes (eg, needle exchange), groups that remain invested in conventional criminal-justice-based approaches have recently intensified their efforts to maintain the status quo. One such example is the newly founded Institute on Global Drug Policy, an arm of the Drug Free America Foundation.

As stated on the Drug Free America website, “the Institute is charged with creating and strengthening international laws that hold drug users and dealers criminally accountable for their actions”. Rather than supporting the unfiltered consideration of evidence-based policy, the Institute on Global Drug Policy supports “efforts to oppose policies based on the concept of harm reduction”. Of particular note, the Institute on Global Drug Policy’s website presents itself in the form of an online open access journal. To our

knowledge, this is the first time a lobby group such as the Drug Free America Foundation has created for itself a venue for the dissemination of opinion essays, which to the untrained eye could easily be mistaken for a scientific journal.

The Drug Free America Foundation seems to have had some recent success with this approach. In an apparent effort to persuade Canada’s Prime Minister Stephen Harper that his government should withdraw support from North America’s first medically supervised safer injecting facility (SIF) in Vancouver (figure), the website recently published a critique of the SIF. This article was funded by Canada’s Royal Canadian Mounted Police and drafted by a local anti-harm-reduction activist.<sup>2</sup> The website has also posted a range of articles against needle exchange and other evidence-based harm reduction programmes. The conclusions of the needle exchange articles clearly contradict scientific consensus documents, such as a recent report by the US Institute of Medicine.<sup>3</sup>

Since the online publication of the Institute on Global Drug Policy’s article, Canada’s new federal government has announced a new anti-drug strategy that redoubles law enforcement efforts while leaving the future of the Vancouver SIF in doubt.<sup>4</sup> Alarming, Canada’s federal health minister has recently alluded to the Global Drug Policy’s report and referred to growing academic debate about the effectiveness of the SIF.<sup>5</sup> This is despite the fact that all studies published in conventional scientific publications have shown a range of benefits of the programme and none have demonstrated any negative effects.<sup>6–9</sup>

It remains to be seen whether what has been described as the Canadian federal government’s new “ideological” opposition to harm reduction will win them votes.<sup>10</sup> Unlike in the USA, where surveys suggest that the public supports the country’s “war on drugs”,<sup>11</sup> recent surveys in Canada suggest that the Canadian public is catching up to science when it comes to support for harm reduction programmes.<sup>12</sup> Although the Canadian public may be gaining wisdom, advancing evidence-based public health will now require that politicians are able to tell the difference between valid peer-reviewed science and essays posted on the websites of lobby groups.

For more information on the Drug Free America Foundation see <http://www.dfaf.org/globaldrugpolicy.php>



Figure: Vancouver’s medically supervised safer injecting facility, where drug users can inject pre-obtained illicit drugs under the supervision of medical staff

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## Clinical features of Rocky Mountain spotted fever

The Review on Rocky Mountain spotted fever (RMSF) by Filipe Dantas-Torres<sup>1</sup> provided an excellent overview of the disease; however, it omitted some important clinical details. Based on my experience, I would like to share these key clinical features of RMSF (panel).

It is true that RMSF can mimic some viral infections. Unlike non-arboviral exanthems, RMSF typically presents with severe headache, often mimicking meningitis, but without nuchal rigidity. The fever pattern in RMSF is non-specific but is accompanied by relative bradycardia, which limits diagnostic possibilities.<sup>2–7</sup> Early RMSF may resemble typhoid fever; however, the rash is located on the wrists and ankles rather than on the abdomen and gradually becomes petechial. Myalgia in RMSF is prominent in the abdominal, back, and calf muscles. Abdominal findings may mimic acute cholecystitis or appendicitis.<sup>6,8</sup>

The clinical diagnosis of RMSF is based on the characteristic petechial rash that appears after 3–5 days. Importantly, the rash is maculopapular before petechiae appear and these early pale pink papules are easily overlooked or missed, especially in early infection or in dark-skinned individuals.

Although exceptions occur, it is prudent to consider RMSF without rash as ehrlichiosis/anaplasmosis, which, except for the absence of rash, closely resembles RMSF.<sup>2–7</sup> Enteroviral infection can cause facial or extremity petechial rashes, but these are never limited to the wrists and ankles.

Bilateral periorbital oedema and conjunctival suffusion are important signs of RMSF. Another key finding is oedema of the dorsum of the hands or feet, which occurs in only two other conditions—toxic shock syndrome in adults and Kawasaki's disease in children. It is unlikely that these disorders would be confused with RMSF. In his Review, Dantas-Torres<sup>1</sup> states that RMSF myocarditis is an infrequent finding. However, myocarditis is not uncommon and is, in fact, the most frequent cause of fatal RMSF.<sup>2–7</sup> Hepatomegaly or splenomegaly may be present and abdominal distension is also seen in patients with RMSF.<sup>2,5,6</sup>

Routine laboratory tests (panel) are helpful for differentiating typhoid fever and viral exanthems from RMSF. RMSF is accompanied by a normal white blood cell count and thrombocytopenia.<sup>2–7</sup> Enteroviral exanthems are often accompanied by thrombocytopenia or leucopenia. In typhoid fever, white blood cell count is