

## A century of chemical warfare: time to stop

One hundred years ago, in August of 1914, during the first month of World War I, a group of French soldiers attacked German troops and, for the first time in declared warfare, used grenades containing tear gas.<sup>1</sup> Thus began the current era of chemical warfare, accompanied by an accelerated arms race, in which several old and new compounds were adopted for military use and even reconfigured for maximum lethality.

In the wake of the Aug. 21, 2013 chemical-weapons attack on the suburbs of Damascus, Syria, that killed over 1000 people, *CMAJ* published an editorial in which Patrick and colleagues,<sup>2</sup> emphasized that “gassing civilian populations is a depraved and depraving act [leading] to a brutalized society destroyed by monsters.” In World War I, the use of poisonous gases accounted for over 1.3 million casualties and more than 90 000 deaths.<sup>3</sup> In parallel, major efforts were initiated by the scientific and the medical communities to develop effective countermeasures with only limited success.

The purpose of chemical warfare agents has changed since their initial deployment, from tactical weapon, to strategic deterrent. More recently, we have witnessed an alarming increase in the frequency with which chemical weapons are used, not only in battlefield situations, but also on civilian populations. Tragic examples of this reality include the attack on the Kurds of Halabja in northern Iraq in the late 1980s, the use of sarin by terrorists in Japan in the mid-1990s, and the current continuing crisis in Syria.<sup>2,4</sup> The importance of strong and effective measures by the international community to prevent the use of chemical weapons cannot be exaggerated.

International collaborative efforts to identify new and more effective treatments and countermeasures must be expanded and put in place until the nations of the world succeed in closing

the curtain on the use of these atrocious agents after 100 years.

**Arik Eisenkraft, S. David Gertz, Yitshak Kreiss**

Institute for Research in Military Medicine (Eisenkraft, Gertz, Kreiss), Department of Military Medicine, Faculty of Medicine, The Hebrew University of Jerusalem and The Israel Defense Forces Medical Corps, Jerusalem, Israel.

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## A little cheese, a big cheese and the novel anticoagulants

I love my work. I have survived and thrived in the trenches of general practice for the past 35 years. I am a “little cheese,” in contrast to the “big cheeses” in large academic centres.

In a *CMAJ* practice article, Moayed and colleagues<sup>1</sup> state:

The Canadian Cardiovascular Society guidelines indicate a preference for novel oral anticoagulants, such as dabigatran, rivaroxaban or apixaban, over warfarin for patients with nonrheumatic atrial fibrillation.

I reviewed the cited article,<sup>2</sup> and in the body of the text there was no unqualified statement that the novel anticoagulants should be used in preference of the warfarin. Instead, the article provides a “conditional recommendation” that “suggests” that when oral anticoagulant therapy is indicated, most patients should receive the novel anticoagulants in preference to warfarin.<sup>2</sup>

I believe that Moayed and his colleagues at the University of Toronto

have been overly enthusiastic in their endorsement of novel anticoagulants. I do not believe the cited reference<sup>2</sup> supports this bias. I have communicated with Dr. Paul Dorion, one of the authors of the *CMAJ* article,<sup>1</sup> several times, and he feels that his enthusiasm is justified.

As a “little cheese” in a smaller community, I rely on *CMAJ* for honest and untainted guidance in respect of safe medical practice. I ask the authors to review their comments and to perhaps qualify their enthusiasm. I refer the authors to an excellent article in *Blood*<sup>3</sup> that does not express a preference for novel anticoagulants, and to my letter,<sup>4</sup> which offers reasons why a “big cheese” may be so enthusiastic.

One may say that these are only words, but they are words that will influence the prescribing practices of thousands of physicians across Canada and potentially put hundreds of thousands of patients at risk. These are important words.

**Ian. L. Mitchell MD**

Family physician, Mitchell Family Medical Centre Inc., Delta, BC

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### The authors respond

We thank Mitchell<sup>1</sup> for his interest in this topic and in our review.<sup>2</sup> Our goal was to afford the reader a concise interpretation of the evidence regarding stroke prevention in atrial fibrillation. We fully appreciate the importance of being cautious in the acceptance of recent clinical trial results. However, we respectfully emphasize that the guidelines do indeed “recommend” the newer oral anticoagulants in preference to warfarin: