ure exceeding the number of cardiovascular events in the trial. Furthermore, patients on β-blockers had significantly higher blood pressure than those on diuretics, raising the possibility that there were unmeasured differences between the groups or that the patients on β-blockers may have been undertreated despite guidelines for additional agents to achieve blood pressure control.

Uncertainty about β-blocker effectiveness following the STOP-Hypertension trial arose from the finding that 78% of the subjects on β-blockers required a second agent to achieve target blood pressure compared with 46% of the subjects on diuretics.[2] However, β-blocker doses were not maximized when in fact among older adults with hypertension, β-blockers at appropriate doses lowered blood pressure to an extent similar to that seen with other agents.[6–9]

Evidence supporting the use of calcium-channel blockers over β-blockers for hypertension in the elderly is not conclusive. While the Syst-Eur trial demonstrated that use of nitrendipine resulted in fewer cardiovascular events than placebo, there was no β-blocker group for comparison. Despite a small reduction in the incidence of dementia, further research is needed to determine agents of choice, particularly in light of a recently described association between dementia and older calcium-channel blockers.[10]

Finally, the STOP-Hypertension-2 trial[11] compared first-line β-blockers and diuretics with angiotensin-converting-enzyme inhibitors and calcium-channel blockers. There were no differences in cardiovascular outcomes. Efficacy for blood pressure lowering, tolerability and the need for additional agents were equivalent among all groups.

Although the case against β-blockers is weak, β-blockers at appropriate doses have yet to be compared with other first-line therapies, other than in the MRC trial. The sixth report of the United States Joint National Committee on Prevention, Detection, Evaluation and Treatment of High Blood Pressure recommends an initial approach with diuretics supplemented if necessary with β-blockers.[12] Perhaps this more accurately reflects the available evidence.

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Unintended subcutaneous and intramuscular injection by drug users

There was a recent epidemic of unexplained illness and death among injection drug users in Scotland, Ireland and England. The syndrome-based case definition was soft-tissue inflammation (abscess, cellulitis, fasciitis or myositis) at an injection site and either severe systemic toxicity (sustained systolic blood pressure < 90 mm Hg despite volume replacement and total peripheral white blood cell count > 30.0×10^9 cells/L) or postmortem evidence of a diffuse toxic or infectious process including pleural effusions and soft-tissue edema and necrosis.[1] For a significant number of cases that met the case definition, there was laboratory evidence of clostridial infection, which suggests that the drugs or other materials used by the injection drug user were contaminated with soil or feces.[2] Aside from proximity in time, the common risk factor for all cases was subcutaneous or intramuscular injection rather than intravenous injection of heroin.

Public health authorities advised physicians to urgently report cases meeting the case definition and recommended that injection drug users with a serious inflammation seek medical attention rapidly. Injection drug users were cautioned to smoke rather than inject heroin; if they did inject, they were advised to avoid injecting into muscle or tissue outside a vein.

To better define the size of the population at risk in our city, we surveyed 153 injection drug users attending Montreal needle exchange programs about their injection practices. No one reported intentional subcutaneous (skin popping) or intramuscular (muscle popping) injections. However, 72 (47.1%) reported unplanned injections; of 17 554 injections in the previous month, 2308 (13.1%) were subcutaneous and 667 (3.8%) were intramuscular as a result of injection error. There was a significant association between these unintended injections and higher age ($p = 0.01$) and female sex ($p = 0.02$).

Length of injecting career and choice of drug were not associated with an inadvertent injection. These findings suggest that a significant number of injection drug users in Montreal, particularly women and older users, are at risk for toxin-mediated fatal infections if contaminated heroin enters the market, even if only intravenous injections are planned.

Because smoking is a less cost-effective route of heroin administration than injection, many users are unlikely to follow the advice to switch to smoking. Serious consideration should be given to encouraging physicians to prescribe sterile injection equipment,[4] to increasing treatment slots, to setting up injection rooms staffed by nurses who can provide advice on safe injection techniques, to conducting clinical trials of medical-quality heroin in people for whom methadone substitution has failed and to instituting strictly supervised heroin, diamorphine or buprenorphine prescription programs for long-term injectors.[5] This would reduce the risk of life-threatening infection from nonsterilized drugs, prevent overdose from heroin of unknown purity, break the link between drug use and criminal activity to acquire drugs and decrease the number of injections in public places.

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An author by any other name

I enjoyed the commentary describing the revised author-declaration rules in the Sept. 19th issue.[1] From the description of Attila Lorincz's contribution to the article on human papillomavirus DNA testing in the same issue,[2] I am uncertain of the justification for Lorincz's inclusion as a coauthor.