1. Introduction

Dead-space syringes are commonly used by injecting drug users (IDUs) to inject medications and may be associated with increased transmission of HIV and hepatitis C virus (HCV) (Lutalo et al., 2001; Zule et al., 2002). In multiple logistic regression models, variables associated with a longer history of injecting drug use were shared dead space syringes. Logistic regression analysis was used to assess associations between predictor variables and HIV infection while adjusting for other risk behaviors, use of dead space syringes was associated with increased odds of HIV infection (odds ratio= 1.92, 95% CI= 1.07, 3.43). The relative impact of dead space on the amount of blood and virus in an exposure is much higher than the relative impact of needle size or the fraction of the needle used, which has been studied extensively. The amount of blood retained in a dead space syringe following one contamination is much higher than the amount of blood retained in a needle syringe following one contamination. The relative impact of dead space on the amount of blood and virus in an exposure is much higher than the relative impact of needle size or the fraction of the needle used, which has been studied extensively. The amount of blood retained in a dead space syringe following one contamination is much higher than the amount of blood retained in a needle syringe following one contamination.

2. Background

Syringe Description

Syringe type: There are two types of syringes used by IDUs, dead space syringes and needle syringes. As shown in Figure 1, dead space syringes retain fluid in the syringe barrel; fluid is only retained in what has been termed “dead space” (see Figure 1). Needle syringes retain fluid in the syringe barrel and in the cannula through the cannula to the base of the syringe barrel; fluid is only retained in the cannula. Integral cannula syringes have a cannula, usually permanently attached, that extends through the cannula to the base of the syringe barrel. Dead space syringes with detachable needles retain fluid in both the needle and the cannula.

Effects of Dead Space Syringes on Fluid and Blood Retention

The relative impact of dead space on the amount of blood and virus in an exposure is much higher than the relative impact of needle size or the fraction of the needle used, which has been studied extensively. The amount of blood retained in a dead space syringe following one contamination is much higher than the amount of blood retained in a needle syringe following one contamination. The relative impact of dead space on the amount of blood and virus in an exposure is much higher than the relative impact of needle size or the fraction of the needle used, which has been studied extensively. The amount of blood retained in a dead space syringe following one contamination is much higher than the amount of blood retained in a needle syringe following one contamination.

3. Methods

4. Results

HIV Model

In multiple logistic regression models, variables associated with a longer history of injecting drug use were shared dead space syringes. Logistic regression analysis was used to assess associations between predictor variables and HIV infection while adjusting for other risk behaviors, use of dead space syringes was associated with increased odds of HIV infection (odds ratio= 1.92, 95% CI= 1.07, 3.43). The relative impact of dead space on the amount of blood and virus in an exposure is much higher than the relative impact of needle size or the fraction of the needle used, which has been studied extensively. The amount of blood retained in a dead space syringe following one contamination is much higher than the amount of blood retained in a needle syringe following one contamination. The relative impact of dead space on the amount of blood and virus in an exposure is much higher than the relative impact of needle size or the fraction of the needle used, which has been studied extensively. The amount of blood retained in a dead space syringe following one contamination is much higher than the amount of blood retained in a needle syringe following one contamination.

4. Discussion

The public health impact of needle exchange programs in the United States has not been studied in a controlled setting, but a large number of programs have been implemented and evaluated. The public health impact of needle exchange programs in the United States has not been studied in a controlled setting, but a large number of programs have been implemented and evaluated. The public health impact of needle exchange programs in the United States has not been studied in a controlled setting, but a large number of programs have been implemented and evaluated.

5. Conclusions


References
