A safe injection does not harm the recipient, does not expose the provider to any avoidable risks and does not result in any waste that is dangerous for other people.

Worldwide, each year, the overuse of injections and unsafe injection practices combine to cause an estimated 8 to 16 million hepatitis B virus infections, 2.3 to 4.7 million hepatitis C virus infections and 80,000 to 160,000 HIV infections*. Among unsafe practices, the re-use of syringes and/or needles without sterilization is of particular concern.

Injection-associated transmission of bloodborne pathogens can be prevented through the development of a strategy to reduce injection overuse and achieve injection safety and its implementation by a national coalition, with the assistance of a coordinator.

The three elements of a strategy for the safe and appropriate use of injections are described in detail overleaf:

- Behaviour change among patients and healthcare workers to decrease injection overuse and achieve injection safety
- The availability of necessary equipment and supplies
- The management of sharps waste.

Words of advice

- Conduct an initial assessment
- Secure government commitment and support for the safe and appropriate use of injections
- Establish a national injection safety coalition, coordinated by the Ministry of Health
- Develop a national policy and plan
- Develop a systematic strategy for behaviour change among patients and healthcare workers to decrease injection overuse and achieve injection safety
- Ensure the continuous availability of injection equipment and infection control supplies
- Set up a waste management system for the safe disposal of sharps
- Monitor the impact of activities on injection frequency, injection safety and injection-associated infections

**Key elements**

### National policy on the safe and appropriate use of injections

It is the responsibility of governments to ensure the safe and appropriate use of injections. The achievement of this goal requires the establishment of a national multidisciplinary coalition involving different departments of the Ministry of Health and other stakeholders, such as non-governmental organizations and associations, and private healthcare providers.

The coalition should be coordinated by a Ministry of Health team and should receive political support, adequate funding and trained staff. Important activities include:

- Initial assessment of injection frequency, breaks in injection safety and adverse events associated with injections, including a behavioural and systems analysis
- Establishment of an injection safety unit to coordinate departments of the Ministry of Health, including health promotion, immunization, family planning, essential drugs programmes, healthcare service delivery, nosocomial infections, blood transfusion service and waste management
- Establishment of a national coalition, including WHO, universities, non-governmental organizations, behaviour change specialists and associations (e.g. consumers, public and private healthcare workers, traditional practitioners)
- Development of a national policy and plan (including costing, budgeting, and financing) by the national coalition, within the Ministry of Health’s overall plan of action
- Prevention through behaviour change to reduce injection overuse and achieve injection safety; provision of sufficient quantities of injection equipment and infection control supplies; and management of sharps waste
- Monitoring of the impact through process indicators (injection frequency and injection safety) and outcome indicators (incidence of injection-associated infections, rational use of injections)

### Behaviour change

The foundation for the safe and appropriate use of injections is a behaviour change strategy targeting consumers as well as public, private and lay healthcare workers. Important activities include:

- Development of a national communication and behaviour change strategy on the basis of behaviour and systems analysis
- Definition of national standards for safe injection practices
- Incorporation of injection safety into minimum standards of care
- Promotion of safe technologies
- Promotion of the rational use of injections within essential drug programmes (e.g. restriction of unnecessary injectable drugs) and with the private sector
- Addressing issues that may lead to poor injection practices, including attitudes, emotions, incentives, beliefs, power relationship, norms and systems

### Equipment and supplies

Eradication of the re-use of syringes and needles without sterilization requires the continuous, sufficient availability of injection equipment and infection control supplies in all healthcare facilities. Important activities include:

- Adoption of auto-disable (AD) syringes for immunization
- Selection of appropriate types of syringes and needles for curative care (sterilizable, disposable or auto-disable)
- Enforcement of international norms and standards by the national regulatory authority
- Central bulk procurement of injection equipment and infection control supplies, including safety boxes
- Central management of storage
- Efficient distribution system to ensure continuous, sufficient availability in all healthcare facilities nationally

### Management of sharps waste

The efficient, safe and environmentally-friendly management of sharps waste is the only means of ensuring that disposable syringes and needles are not re-used and do not lead to accidental needlestick injuries. Important activities include:

- Formulation of a policy stating that disposal is part of the syringe lifecycle and that healthcare services have a duty to manage sharps waste
- Assessment of the waste management system, including expressed and real needs
- Selection of appropriate waste disposal systems for all levels of healthcare facilities
- Implementation of a regulatory framework
- Identification of human and financial resources required
- Implementation of a waste management system
- Training and supervision

Additional information on the safe and appropriate use of injections can be obtained on the World-Wide Web at www.injectionsafety.org and on the Safe Injection Global Network internet forum at sign@who.int

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