Addressing the concerns of Envenoming

Why in news?

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World Health Assembly has adopted a resolution to accelerate and coordinate global efforts to control snakebite ‘Envenoming’.

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What are the concerns of Envenoming?

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- Envenoming is a life threatening disease that follows the bite of a venomous snake.
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- Between 1.8 million and 2.7 million people are bitten worldwide every year, between 81,000 and 1,38,000 of them die, and four or five times that number are disabled, according to the WHO.
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- In India some 50,000 die every year, however the WHO fears this estimate may be just 10% of the actual burden.
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- In 2017-18, 1.96 lakh cases of snakebites were recorded, with West Bengal, Maharashtra and Tamil Nadu reporting the biggest numbers.
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What are the issues in addressing envenoming problem?

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- **Lack of Awarness -** In India about 300-odd species of snakes are found, out of which 52 are venomous, but all their poisons are different.
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- India produces polyvalent ASV, which combines the venoms of India’s four most common poisonous snake’s cobra, common krait, Russell’s viper, and saw-scaled viper.
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- But more venom is wasted in the manufacture of such ASV, and more vials (quantity) are required to treat the patient.
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- **Manufacturing Issues -** ASV manufacture requires a series of forest department permissions.
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- Horses are needed for the test, for which a large space is necessary, thus Private companies do not find all this financially feasible.
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- **Lack of guidelines -** Each manufacturer has its own protocol, which leads to the differing quality of ASV.
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- Researchers find only locally produced ASVs are the most effective, since a snake’s venom changes with terrain, diet and environment.
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- There are various observations that the potency of ASV is reducing in the last few years, but India has lack of research to upgrade its ASVs.
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- **Untrained doctors -** A monovalent ASV, made from the venom of one species, can treat the bite of only that species, it is more efficient that Polyvalent drugs.
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- But the purpose of monovalent drugs are lost in India since doctors fail to identify the right species.
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- In most cases, doctors do not identify the bite mark as it is small, and the victim is attacked while asleep
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What measures needs to be taken?

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- Recently Maharashtra approved the setting up of a National Venom Research Centre.
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- The state also asked the Union government to aid the public sector ASV

manufacturer Haffkine Institute in its work on snake species and poisons.
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- Apart from this in 2009 and 2016, snake bite protocols were drafted by the Union government, such training must cover all doctors.
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- India currently manufactures only polyvalent ASV, it should research in the area of monovalent drugs and produce such drugs.
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- It needs to train doctors to identify snakes by their bites before switching to the production of monovalent ASVs.
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- Proper guidelines needs to ensure the quality of ASVs and MBBS courses should have a separate chapter on snakebites.
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Source: Indian Express

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