Report on Snakebite WhatsApp Supportive Supervision Activities in Bangladesh (2023-2026)

Background

Snakebite envenoming remains a significant public health problem in Bangladesh, particularly in rural areas where access to specialized care is limited and difficult. To strengthen clinical management capacity and facilitate rapid decision-making, the Directorate General of Health Services (DGHS) and the Toxicology Society of Bangladesh (TSB) established a remote supportive supervision system combining a 24/7 WhatsApp consultation platform and regular virtual training sessions which is also augmented by monthly regular online taining arranged by these two organization.

By 24 August 2026, the program had connected 821 healthcare professionals through its WhatsApp network, supported monthly virtual sessions reaching 70 to 200 connection points.The number of members actively connected varies over time and is not reported here as a fixed measure

1. Twenty-Four Hour Snakebite Support Group (WhatsApp-Based Tele-Supervision)

Establishment and Structure

The Snakebite Support Group was initiated in December 2023 as a voluntary joint initiative of DGHS and TSB. The platform functions as a nationwide tele-support network comprising experienced physicians, snakebite specialists, and herpetologists who provide real-time consultation to healthcare professionals managing snakebite cases and identify the selective snakes presented in photograph.

Operational Model

The system follows a "Hub-and-Spoke" approach:

- District Hospitals (DHs) and Medical College Hospitals (MCHs) act as referral hubs.
- Upazila Health Complexes (UzHCs) function as peripheral spokes.
- Real-time clinical guidance is provided to frontline doctors managing snakebite patients at spokes.
- Communication between referring and receiving facilities facilitates prompt faster referral and preparation for definitive care.
- Critically ill patients requiring respiratory support can be transferred under expert supervision.

Notably, at least six patients with respiratory paralysis were successfully transferred while receiving continuous manual ventilatory support using Ambu bags. Advance communication

enabled expedited management, and several patients were admitted directly to intensive care units upon arrival at referral facilities.

Objectives

Primary Objectives

1. To support evidence-based clinical decision-making in snakebite management according to national guidelines.
2. To facilitate snake species identification through examination of photographs, videos, or specimens when available.

Secondary Objectives

1. To improve surveillance and reporting of snakebite cases.
2. To encourage documentation of snakebite-related mortality.
3. To monitor and report adverse reactions associated with antivenom administration.
4. To encourage the frontline health care professionals skill of presentation and improve educational experiences.

Consultation Process

Healthcare providers submit standardized clinical information including:

- Geographic location of the incident.
- Bite site and circumstances of exposure.
- Time interval between bite and healthcare presentation.
- Clinical manifestations and progression.
- Specific consultation needs regarding diagnosis, treatment, referral, follow-up, or snake identification.

To maintain patient confidentiality and ethical standards, sharing of images and videos is restricted to situations where clinically necessary and with appropriate consent.

Educational Value

Beyond case consultation, the WhatsApp platform serves as a continuous learning environment where experts discuss complex cases, provide updates on snake biology and clinical management, and conduct collaborative problem-solving exercises. Selected cases are further utilized as educational material during monthly training sessions.

2. Monthly National Snakebite Training Through ZoomEstablishment

Monthly virtual snakebite training sessions commenced in January 2024 under the coordination of DGHS and TSB.

Training Methodology

The program is conducted on the first Wednesday of every month from 12:00 pm to 1:00 pm.

Key features include:

- Official DGHS circulars distributed to all public healthcare facilities.
- Participation from Upazila Health Complexes, District Hospitals, and Medical College Hospitals.
- Technical support provided through MIS-DGHS Zoom platforms.
- Annual moderator schedules and expert panels.

Session Format

Each session typically includes:

1. Opening remarks from DGHS.
2. Moderated scientific discussion.
3. Presentation of two to three selected snakebite cases (5-8 minutes each).
4. Expert panel discussion and question-and-answer session.
5. Summary and recommendations.

Cases are identified from the WhatsApp support group and prepared collaboratively with expert guidance, ensuring educational value and clinical relevance.

Participation

Attendance ranges from 70 to 200 virtual connection points per meeting, representing diverse healthcare institutions across Bangladesh. Since multiple participants often join from a single facility, the actual number of healthcare workers reached is substantially higher.

Educational Outcomes

The case-based learning approach promotes:

- Improved recognition of envenoming syndromes.
- Appropriate antivenom use.
- Better referral decisions.
- Enhanced management of neurotoxic snakebite and respiratory complications.
- Increased adherence to national treatment guidelines.

3. Additional Program Activities

The supportive supervision initiative has expanded beyond case management and training to include:

- Observation of International Snakebite Awareness Day.
- Celebration of International Snake Day.
- Antivenom-related educational and operational activities.
- Venom Research Centre (VRC)-related initiatives.
- Support and promotion of dedicated snakebite services including:
    - Snakebite Clinic, Chattogram Medical College Hospital.

    - Snakebite Ward, Rajshahi Medical College Hospital.
- Publication of a case compilation booklet, *"Shorpo Dongshon: SafalatarGolpo"* (2024), documenting successful snakebite management cases presented during monthly meetings.

The figures and outcomes presented in this report are drawn from program membership, virtual-session attendance, case discussions, and documented referral experiences through August 2026. They demonstrate operational reach and selected clinical successes but do not constitute a formal evaluation of changes in mortality, treatment quality, or health-system performance.

Conclusion

The DGHS-TSB Snakebite Supportive Supervision Program represents an innovative telemedicine-based capacity-building model for snakebite management in Bangladesh. Through a combination of 24/7 expert consultation and structured monthly case-based training, the program has strengthened clinical decision-making, facilitated timely referrals, improved communication between healthcare tiers, and promoted evidence-based snakebite care nationwide. The initiative demonstrates the potential of digital supportive supervision to enhance management of neglected tropical disease emergencies in resource-constrained settings.
Overall, the DGHS-TSB supportive supervision program has established a credible nationwide model that combines rapid clinical consultation, coordinated referral support, and continuing professional education for snakebite management.

Key Achievements (December 2023-August 2026)

- Nationwide 24/7 snakebite consultation network established.
- 821 healthcare professionals connected through WhatsApp.
- Real-time Hub-and-Spoke referral support operational.
- Successful supervised transfer of critically ill neurotoxic snakebite patients.
- Monthly national continuing medical education program implemented.
- Participation from all levels of public healthcare facilities.
- Improved documentation, reporting, and learning from snakebite cases.
- Development of a sustainable platform for ongoing professional support and capacity building in snakebite management.