

Sudden Hearing Loss Initiative

The following is a derivation from the Toronto General Hospital ISSHL Protocol 2014

Developed as a collaborative effort between Dr. Wayne Evans (Hyperbaric Medicine - UHN) and Dr. David Pothier (Otology - UHN) with assistance from Dr. John Rutka (Otology - UHN)

Critical Information for ENT Specialists and Frontline Providers

New and more aggressive management approaches to sudden hearing loss may be unfamiliar to many ENT specialists, as well as the frontline providers (Family Physician or Emergency Room Physicians).

Incidence of Sudden Hearing Loss - it has been quoted at 5-20 per 100,000 annually. Recent data suggests that the number may be 300 or more.

Morbidity Life Long - Previously under-recognized, Sudden Hearing Loss has been identified to cause significant morbidity, unfortunately for life.

Shift in Management – In 2014 the MOHLTC supported the modern paradigm in the urgent management of sudden hearing loss which results in better outcomes.

[A new management paradigm for sudden hearing loss was introduced to Ontario Physicians in 2014 as an insured service under OHIP].

Best Practice Protocol - There are 3 essential components to the Urgent Management of Sudden Hearing Loss:

- 1 - Urgent commencement of intratympanic dexamethasone, +/-
- 2- An intense short course of hyperbaric oxygen therapy
- 3 - A pulse course of systemic steroids.

Problem: Presentation to the ENT specialist is often delayed and the 2 week maximum window to commence treatment, permitted covered under OHIP, has often been missed thus preventing treatment.

Collaboration = best outcome. (a team approach may provide an advantage in managing sudden hearing loss.)

Family Physician or Emergency Room physician:

The frontline MDs could be greatly assisted by quickly making a hearing loss diagnosis and commence pulse steroids while facilitating the subsequent precision documentation and procedure arrangements.

Early referral to Either Hyperbaric Unit or ENT specialists who are familiar with this management trio.

Hyperbaric medicine units are generally aware of and can easily coordinate with ENT specialists who are available in that locale to provide the injections. (This would empower the ENT specialists to act urgently)

ALERT



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Endorsements for Best Practice Protocol

OHIP

All components of the Urgent Management of Sudden Hearing Loss have been endorsed by the Ontario Health Insurance Plan (OHIP) as an insured service, if treated as an emergency (not for long-term hearing loss)

Ontario Medical Association Section on Hyperbaric Medicine

The Urgent Management of Sudden Hearing Loss was developed and supported by the work of the Ontario Medical Association Section on Hyperbaric Medicine as well as the Section on Otolaryngology with agreement by the Ontario Ministry of Health and Long Term Care.

Health Canada

This Management Protocol is endorsed by Health Canada

References

Author Date n Outcome

Konstantina	2015	56	Single arm 87% Subjective improvement
Racic	2001	17	Single arm [61-93db loss -> ave 22db post HBOT]
Dunbar	2007	80	55 HBOT/SSs +25 SSs -> HBOT signif better
Topuz	2003	51	RCT 30 HBOT/SSs + 21 SSs -> HBOT more effect in severe loss and & over age 50
Cekin	2009	57	RCT 36 HBOT/SSs + 21 SSs -> 79% HBOT improved vs 71% control [not signif]
Khater	2017	22	RCT 11 HBOT/SSs /ITSI + 11 SSs/ITSI[no HBOT] -> 100% HBOT complete resolution vs 45% non-HBOT
Chi	2018	60	RCT 30 HBOT/SSs + 30 SSs [no HBOT] = Delayed but significant improvement in HBOT group

HBOT = Hyperbaric Oxygen Therapy SSs = systemic steroids ITSI = intratympanic steroid injection

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