GNN Submission Guide: Clinical Cases

Submission Checklist

(Items with an asterisk (*) indicate required fields)

NOTE: It is possible to save a partially completed submission, but we strongly recommend completing the submission in one session whenever possible.

☐ ***Brief, descriptive clinical case title** (recommended limit: 100 characters)

Example: Facial and vestibulocochlear nerve palsies induced by brain abscess

☐ ***Brief description of clinical case to preview in the GNN database** → include a 1–2 sentence overview of the clinical case with a clear neuroanatomical basis to preview in the GNN database

Example: A paediatric patient with chronic otitis media leading to brain abscess located adjacent to the petrous part of the temporal bone. Subsequent effects on the facial and vestibulocochlear nerves, as well as cerebellum and ventricular system, with associated signs and symptoms.

☐ ***Names of all authors / contributors** → NOTE: by submitting a clinical case, you are confirming that all contributors are aware of and have agreed to it being shared

☐ For real (vs fictitious) clinical cases, you must have informed consent from the patient

☐ ***Geographical location** → identify the geographical location associated with the case

Options: Africa, Antarctica, Asia, Europe, Oceania, North America, South America, non-specific, and/or specific location (e.g., country, city, etc.)

☐ ***Clinical setting** → identify the clinical setting associated with the case

Options: Acute Care, Emergency Department, Hospital, Outpatient facility, Skilled Nursing Facility, Rehabilitation, Wellness Center, Rural Health, Military / Field, and/or Other

☐ **Chief complaint** → if yes, include signs or symptoms with which the patient initially presented.

Example: A 9-year-old boy consulted at the emergency department because of headache and neck stiffness. For about a month now, he has been having intermittent

fever at night, which would go away with paracetamol. The headache started about two weeks ago, associated with vomiting. Later, he started experiencing neck stiffness and nape pain. Three days prior, he could no longer walk without support because of weakness of both lower extremities. He did not have blurring of vision, seizures, or lethargy.

☐ **Relevant past medical history** → if yes, add any relevant details that may inform the case, including 'normal' findings that could change the differential diagnosis

Example: No history of heart disease or prior surgery.

☐ **Relevant vitals** → if yes, include any relevant information about heart rate, blood pressure, temperature, respiratory rate, O2 saturation, etc.

Example:
- *Blood pressure: 90/60 mmHg*
- *Heart rate: 98 bpm*
- *Temperature: 37.2ºC / 99ºF*

☐ **Relevant physical exam findings** → if yes, summarise any relevant information about other organ systems aside from the nervous system (e.g., general, HEENT [head, eyes, ears, nose, and throat], cardiovascular, respiratory, gastrointestinal, musculoskeletal) including findings within normal limits where applicable

Example: Long-standing discharge of pus-like material from the left ear. No cough, colds, or nasal discharge on presentation.

☐ **Relevant neurological exam findings** → if yes, summarise any relevant information about motor (e.g., tone, reflexes, coordination, gait), somatosensory (e.g., two-point discrimination, vibration, pain, temperature), cranial nerve, cognitive, psychiatric, and/or emotional / affect exams, including findings within 'normal' limits where applicable

Example:
ABNORMAL
- *Shallow left nasolabial fold*
- *Could not wrinkle forehead*
- *Eyelid closure weaker on left side*
- *Hearing impaired in left ear*
- *Dysmetria in left upper limb (with overshooting on finger-to-nose testing)*
- *Gait testing not performed because patient could not stand on their own*

NORMAL
- *Awake*
- *Able to talk and follow commands (not cognitive limitations)*
- *Vision, eye movement, and pupils normal*
- *No sensory deficits on face*
- *Shoulder shrug equal*
- *Tongue midline*
- *Anti-gravity movements in all limbs*
- *Motor strength equal for left and right*

☐ **Relevant diagnostic testing or imaging data** → if yes, summarise any relevant diagnostic (e.g., blood culture, biopsy, stool, urine) or imaging data collected, including 'normal' findings where applicable

*Example: Cranial CT **(Images 1–3)** of the head with intravenous contrast was performed. This showed a rim enhancing lesion on the left cerebellum, adjacent to the petrous portion of the temporal bone and surrounded by edema. The fourth ventricle was compressed causing dilation of the lateral and third ventricles.*

Specimens from the abscess were sent to the laboratory for analysis. Microscopy showed 4 to 6 PMNs per OIF, 3 to 6 gram-positive cocci in clusters per OIF, and 4 to 5 gram-positive cocci in pairs per OIF. Abscess culture had heavy growth of Enterococcus avium (susceptible to vancomycin and linezolid, resistant to ampicillin and penicillin).

Blood culture was negative

☐ ***Final diagnosis** → provide a 1–2 sentence description of the final diagnosis, if applicable. If a definitive diagnosis is not available, please include a brief list of likely differentials

Example: Left cerebellar brain abscess due to chronic otitis media.

☐ ***Anatomical basis of clinical presentation** → provide a brief description of the neuroanatomical basis underlying major physical and/or neurological exam findings

Example:
- *Headache and vomiting are from raised intracranial pressure due to (1) mass effect of the brain abscess and (2) obstructive hydrocephalus.*
- *Neck stiffness and pain likely caused by irritation of the upper cervical nerves due to secondary tonsillar herniation.*
- *Intermittent night fevers likely caused by bacterial infection*
- *Difficulty walking and dysmetria in left upper limb likely associated with a space-occupying lesion compressing the cerebellum (primarily affecting left anterior and posterior lobes and the vermis, but also likely affecting the right due to bilateral lower extremity weakness reported by patient prior to presenting to ED).*
- *Shallow left nasolabial fold due to loss of innervation to muscles such as levator labii superioris alaeque nasi, levator labii superioris, zygomaticus major/minor, risorius, and levator anguli oris.*
- *Could not wrinkle forehead due to loss of innervation of frontalis belly of occipitofrontalis via temporal and zygomatic branches of left facial nerve.*
- *Eyelid closure weaker on left side due to loss of innervation to orbicularis oculi via temporal and zygomatic branches of left facial nerve (note that not all facial muscles are affected as this is not a facial motor nucleus lesion, but rather a lesion involving a branch of the facial nerve).*
- *Hearing impaired in left ear is likely a mixed type of hearing loss, due to lesion to left vestibulocochlear nerve (sensorineural hearing loss) and ear discharge caused by Enterococcus avium (conductive hearing loss) suggesting destruction of the external ear apparatus.*

☐ **Additional notes** → add any additional or miscellaneous information, including…
- Intervention and/or treatment details
- Prerequisite knowledge of basic neuroanatomy concepts (i.e., for learners)
- Other relevant patient history (e.g., social)

Example:
INTERVENTION / TREATMENT
*The patient was started on broad-spectrum antibiotics (ceftriaxone + metronidazole) and he underwent a left suboccipital craniotomy to excise the brain abscess **(Image 4)**. Antibiotics were shifted to vancomycin and meropenem after confirmation of bacterial species.*

He was referred to Otorhinolaryngology/Ear Nose Throat for management of his chronic otitis media, which was the most likely source of his brain abscess. He underwent physical therapy while completing his antibiotic treatment and was discharged home afterwards.

PREREQUISITE KNOWLEDGE
  - *Cranial nerves (functions and courses)*
  - *Ventricular system (anatomy and CSF circulation)*
  - *Cerebellar anatomy and its functional pathways*
  - *Muscles of facial expression*
  - *Dural venous sinuses (must know locations to perform safe suboccipital craniotomy)*

☐ **Supplementary material** → attach external links (including videos), image files (e.g., PNG, JPG, TIFF), and/or additional documents (PDF files only). Maximum file size: 8 MB

Example:
[Exemplar case ("Facial and vestibulocochlear nerve palsies induced by brain abscess") includes 4 complementary images, each of which is specifically referenced in the "relevant diagnostic testing or imaging data" or "additional notes" sections]
  - *3 CT images*
  - *1 surgical image of suboccipital craniotomy*

List of Available Tags for Clinical Cases (in Alphabetical Order)

NOTE: A <u>minimum</u> of 1 tag must be selected, but there is no maximum

ANATOMICAL REGION AND SYSTEM
- Basal Nuclei
- Brainstem
- Cerebellum
- Cerebrum
- Cranial Nerves
- Diencephalon
- Meninges
- Spinal Nerves
- Spine and Spinal Cord
- Vascular Supply / Drainage
- Ventricles

PRESENTATION BY FUNCTIONAL SYSTEM
- Auditory
- Autonomic
- Cognitive
- Higher Cortical Function
- Limbic / Emotional
- Motor
- Olfactory and Gustatory
- Somatosensory
- Vestibular
- Visual

TARGET AUDIENCE
- Biomedical Science
- Chiropractic
- Dentistry
- General Public or Lay Audience
- Grade School or High School
- Graduate / Postgraduate
- Medicine
- Nursing
- Occupational Therapy
- Physician Assistant / Associate
- Physiotherapy / Physical Therapy
- Podiatry
- Speech and Language Pathology
- Undergraduate
- Veterinary

FAQs: Clinical Case Submissions

Q: Can I include 'normal' findings in my clinical case submission?
A: Yes, especially if those findings are relevant to the case or eventual diagnosis, specifically in the context of the underlying neuroanatomical basis of clinical presentation

Q: Parts of my clinical case do not fit under any of the headings… where should I put them?
A: Please use the "additional notes" field for any miscellaneous details that do not fit in any of the other sections in the submission form

Q: Can I use abbreviations?
A: Yes, but please define them where they first appear in the case

Q: Can I include videos in my case?
A: Yes, but they must be hosted externally and added as a link (e.g., YouTube, Vimeo). If you are uploading your own content to an external video hosting site, consider using unlisted or private settings if you do not want your video content showing up in public searches

Q: Can I submit a clinical case if I don't have details to complete all of the fields?
A: As long as you have the patient's consent and completed all of the required fields (indicated with an asterisk) you are welcome to submit your case with the details that are available

Q: What is the default Creative Commons (CC) license under which my submitted content will be distributed?
A: The default Creative Commons license for all submissions is the Creative Commons Attribution-NonCommerical-ShareAlike 4.0 International License (CC BY-NC-SA 4.0)
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- The "NC" means that your content cannot be used for commercial purposes.
- The "SA" means that anywho who makes modifications or additions to your content must distribute it under the same CC license (e.g., they cannot claim a more restrictive copyright under their own name)

Q: What if I have previously distributed this content under a different CC license, or I would like to choose a less restrictive CC license?
A: There is a field on the submission form to indicate if you would like to use a different CC license, whether voluntarily or due to previous distribution. Please use the CC License Chooser for assistance: https://chooser-beta.creativecommons.org/

Q: Can I contact the GNN to help me with a submission?
A: Absolutely! Please send any questions to globalneurontwk@gmail.com

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Edits to Original Submissions during Peer Review:
Please note that the GNN editorial team reserves the right to make minor edits and/or changes to submitted clinical cases at their discretion in the interest of improving accuracy, clarity, and useability. Likewise, we reserve the right to modify submissions to meet the needs and expectations of creating a respectful, accessible, equitable, and inclusive learning environment.

Peer Review Process

In keeping with the spirit of this community of practice, each clinical case or teaching resource will be peer-reviewed before being published on the GNN website. In addition to maintaining the accuracy and consistency within the GNN repository, the peer-review process will ensure that appropriate ethical approvals and de-identification exist. Our simplified process also limits the administrative workload for contributors and peer reviewers.

Submissions to the GNN will be routed to the Editors-in-Chief (EICs), who will perform an initial quality control review. During this process, the EICs will ensure that materials address neuroanatomy content, are properly uploaded, all patient data has been de-identified, embedded files (e.g., images) are cited appropriately, external links functions, and copyright information is correct. Submissions that do not meet these criteria will be sent back immediately to the authors for revision before the peer review process is initiated.

Once quality checks are completed, EICs route submissions to Associate Editors (Basic Science, Pedagogy, Clinical Content), who will solicit reviewers for their respective content expertise areas. All submissions will have a minimum of two peer reviews, depending upon the submission type. Teaching resources will be routed for review for pedagogy and basic science content, with a clinical content review only solicited if deemed necessary by EICs. Clinical cases will be routed for clinical and basic science review, with a pedagogical review only solicited if deemed necessary by EICs.

Peer reviewers will use the GNN peer review form and a draft of the post as it would appear on the GNN website to complete their reviews. Therefore, peer reviewers do not need to login to the GNN or an additional site to accomplish their work. Peer reviewers will focus on evaluating submissions for completeness, accuracy, reliability/clarity, and level of complexity.

Once peer review is completed, Associate Editors will route decisions to the EICs, who will then contact the authors with editorial decisions (e.g., reject, no revisions, minor revisions, or major revisions). Depending upon the type(s) of revisions needed, authors may be required to resubmit the article. Alternatively, EICs may handle minor revisions directly with approval and guidance from the authors. The estimated time from submission to publication is 60 days, though it will vary depending on the submission type, peer review process, and availability of content experts.

Questions about editorial and peer review process? Contact the EICs at globalneurontwk@gmail.com. Please Include "EIC Peer Review Process" in the subject line.