Untimed Encephalo-herpetic Treatment & Case Review

Abstract: This review frames herpes simplex encephalitis (HSE) as a neurological emergency: even though high-dose acyclovir has cut mortality, survivors often face profound memory and personality deficits from hippocampal damage. Delays in diagnosis or treatment – even by hours – dramatically worsen outcomes ("time is brain" applies rigorously to HSE). The work synthesizes case reports and personal testimonies along multiple axes (time, cases, neurologics, experience, and context) and concludes that late care causes preventable, often irreversible hippocampal injury. Authors stress that clinicians must err on the side of suspicion and disclose any mistakes (as concealing harm is intolerable). The text emphasizes high stakes upon lifetime impact and reviews verdicts upon delayed antiviral treatment as highlighters of health systems failing to supply them "without undue delay", and breaching standards of care. It also highlights systemic inequities (as patient concerns are dismissed) upon such scenarios, calling for institutional support and accountability through improved adaptive protocols, rehabilitative care, and remediation.

key-words: encephalitis, herpes, hippocampus, memory, health

i. Introduction to Herpes Simplex Encephalitis

Herpes simplex viral encephalitis (HSE) remains a devastating neurologic emergency despite the advent of high-dose acyclovir (Hokkanen et. al, 1996). Prior to antiviral therapy, mortality approached 70%; with prompt treatment, survival improves dramatically, yet up to one-quarter of survivors sustain diverse cognitive and functional impairments (Hughes & Jackson, 2012; Raschilas, Wolff, Delatour et al., 2002). These long-term deficits - most notably profound anterograde amnesia, language disturbances, and mood dysregulation – are closely linked to temporal, limbic and hippocampal damage observed in neuroimaging and pathology studies (StatPearls, 2023).

Herpes Simplex Encephalitis (HSE) presents a neurologic emergency that requires rapid recognition beyond its protean symptoms and the systemic bias toward other differential diagnoses. While the introduction of high-dose intravenous acyclovir dramatically reduces mortality rates, the morbidity burden remains high - particularly regarding neurocognitive sequelae such as memory deficits, anxiety dysfunctions, and psico-emotional depression. These impairments often stem from necrotizing inflammation within limbic structures, primarily the hippocampus and amygdala, which are integral to memory consolidation, emotional salience processing, and narrative selfhood (Bradshaw & Venkatesan 2016; Kapur et al., 1994).- Despite its relative rarity, HSE occupies a disproportionately impactful place in neurology, psychology, and law due to the cascading effects of its often-preventable outcomes.

Diagnostic inertia — predefined underrecognized factors in delayed treatment — manifests when HSE mimics psychiatric episodes, migraines, systemic sepsis, or transient ischemic attacks. Such ambiguity intersects with deep-rooted cognitive biases upon healthcare professionalism, such as anchoring and premature closure, resulting in suboptimal initial responses and poor patient outcomes (Croskerry, 2002; Paterson et al., 2014; Norman & Eva, 2010). While "time is brain" remains the prevailing ethos, there is a growing body of evidence underscoring how clinical delay - often driven by systemic inefficiencies or interspecialty miscommunication — results in irreversible cognitive fallout (Kennedy & Chaudhuri, 2002; Tunkel et al. 2008). The human brain's acute sensitivity to viral replication in temporal areas exacerbates this fragility, with irreversible damage accruing after as little as 6-12 hours of untreated viral activity (Parnell, 2018; Whitley & Kimberlin, 2005).

Clinical guidelines from IDSA and other bodies emphasize empiric acyclovir administration at the first suspicion of encephalitis, encapsulated in the "time is brain" axiom: each hour's delay correlates with worsened neurologic outcome and higher mortality (Raschilas, Wolff, Delatour et al., 2002). Yet diagnostic inertia is common, as prodromal symptoms (fever, headache, confusion) often mimic stress, stroke, systemic infections, or psychiatric relapse, leading to misattribution and antiviral delay (Raschilas, Wolff, Delatour et al., 2002; Rubin, Russell, & Gulinello, 2012). Moreover, emerging cases underscore the gravity of such delays, reparative support helps supply initial breaches of standard of care when acyclovir was not administered without undue delay (Rubin, Russell, & Gulinello, 2012).

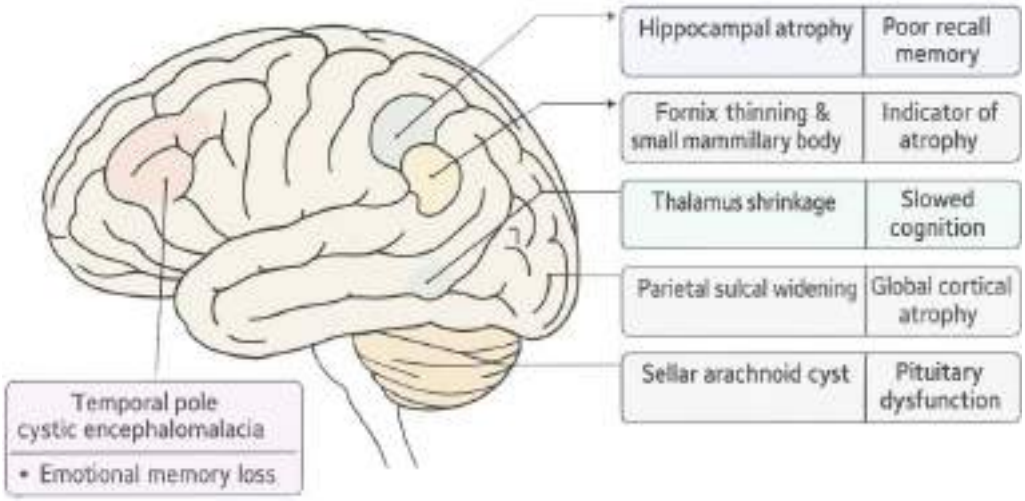

Fig. 1. Neuroanatomic Recall: *Cognitive impact vial mapping.*

Structural brain changes from delayed encephalitis diagnosis to behavioral dysfunction may impact temporal pole, hippocampus, fornix, and thalamus. Systemic damage can be seen from ventricular dilation, sulcal widening, atrophy reflect and not-through-by prior neurodegeneration.

Beyond the clinical lens, delayed HSE diagnosis has health, social, and even geopolitical ramifications, recent interdisciplinary analyses link such delays to system-wide inequities, a priori injustice – where patient voices are structurally dismissed – and medicolegal vulnerabilities where institutions face liability for diagnostic oversight (Souter et al., 2020; Carel & Kidd, 2014; Gallagher, 2013).

In examining the landscape of herpetic encephalitis, a convergence of clinical neurobiology, phenomenological accounts, and policy failures becomes evident. A truly integrative approach demands that we not only focus on pharmacological optimization but also expand our gaze toward systemic adaptative, interdimensional training, and phenomenic care – receptive to cognitive affectance – not merely filtering charts from pseudoobjective preselected neurologic markers (Yang & Shih, 2023; Klein & Nichols, 2012).

Algorithmic brain-emergency pathways should trigger empiric antiviral ordering as stroke thrombolysis and ignoring systemic-negligence demands transparency: from WHO to local health departments, institutions should openly report delays and implement open-improvements as official recommendations now call for “fast-track” protocols like acute encephalitis guidelines or ICU teams rapid-care agency stipulating that delay in suspicion or treatment leads to preventable brain injured failed unaccountable health warrant (Ellul & Solomon, 2018; Mount Sinai Health System, 2019). In this mixed-methods scoping review we systematically synthesize reports and publishings through PRISMA-ScR and CARE guidelines, upon five analytic axes (timing, diagnosis, neuropathologics, experience and context) to quantify the preventable harm of delayed HSE care and delineate its clinical, health, and social implications.

ii. Contextual Diagnosis & Accuracy

The first barrier in timely HSE treatment is cognitive error. Heuristics used in emergency medicine often privilege more common etiologies like stress, scourge, stroke or sepsis. Though guidelines procure mentally altered febrile patients or similar focal deficits automatically prompt CNS infection work-ups; empiric treatment must procure “acyclovir is administered promptly every time [HSE] is suspected, even while awaiting diagnostics” (Mount Sinai Health System, 2019). **Clinicians may prematurely disanchor into self-perception, or anchor onto psychiatric causes - especially if patients present with confusion, psychosis, or mood changes - and easily ignore early neuroviral possibilities** (Croskerry, 2002). This bias is compounded when patient histories are vague or fragmented precisely because of the prognosis, often leading to premature closure without lumbar puncture or imaging (Norman & Eva, 2010). In this sense, **the cognitive architecture of early diagnosis is not favorable;** it is shaped by previous training gaps, stress, time pressure, and societal stigma around mental illness and

neurodivergence. Beyond cognitive loss, persistent psychoemotional problems and depression in patients require low mood and anxiety handling as part of their recovery (Jackson & Morton, 2020). As discussed by Ratcliffe (2018), phenomenology highlights how clinician-world-patient interactions are subtly distorted by **assumptions, reinforcing sistemico-epistemic blind spots** in high-stakes triage.

There's a need for humility and open-ended diagnostic frameworks in our medico-scientific approach to pragmatic deployments, particularly for diseases like HSE where early presentations mimic social and psychosomatic neuropsychiatric engagements (Krett et al., 2022). Incorporating interdisciplinary rounds with neurology, psychiatry and infectious disease: experts could decentralize anchoring tendencies - a plural insight specially required upon emergency attention medical aid.— Likewise, AI-enhanced decision support systems are beginning to show promise in flagging rare diagnoses like HSE based on subtle risk pattern recognition and countering human diagnostic biases (Topol, 2019). The future requires us to improve an ever-more-accurate procedural detailing towards diligent and precise scenario management and health help deployment.

ii.a. Selflessened Neurophenomenics: Time and Trauma

Survivors of HSE often report devastating autobiographical disruptions. Memory loss from hippocampal damage destabilizes not only cognition but the continuous narrative of self. Studies note recent memory impairment as particularly severe, with recall (not recognition) most affected (Lad et al., 2019). One large review of anti-NMDA receptor encephalitis found that at least 3 of 4 patients had persistent deficits in processing speed, episodic memory, and executive functions long after acute illness (McKeon et al., 2018). Studies in neuropsychology have demonstrated how limbic injury in encephalitis results in impairments beyond anterograde amnesia — damaging regulated emotionality, continuous narratives, and sanity overprocessing (Kapur et al. 1994; Klein & Nichols, 2012). This collapse of memory directly intersects with phenomenological accounts of trauma: patients often describe the experience as a rupture in temporal flow, a disintegration of identity, or a descent into an alienated present (Zahavi, 2005).—

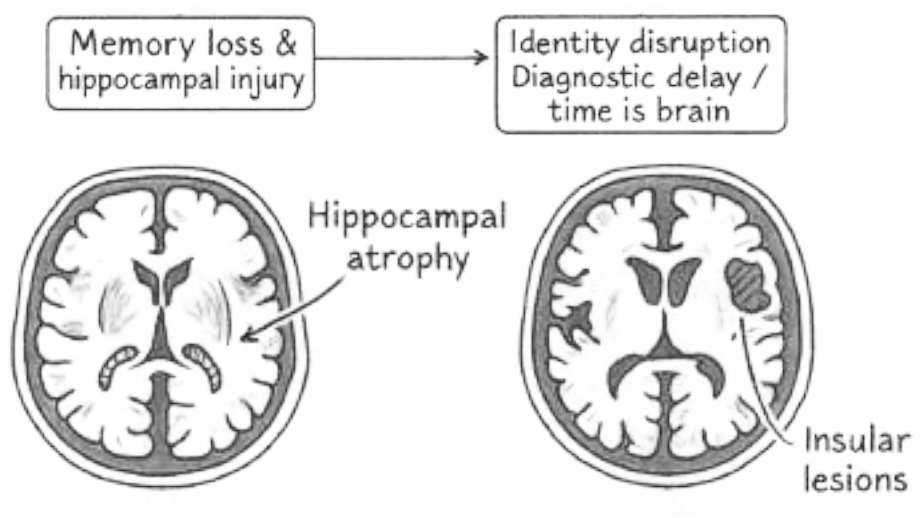

Fig. 2. Bucocirco-nasal Limbo-hippocampal Impact: *Highlights review theoretic simple recall.*

Structural brain changes from delayed encephalitis diagnosis to behavioral dysfunction may impact temporal pole, hippocampus, fornix, and thalamus reflecting non-neurodegenerative system atrophies from ventricular dilation to sulcal widening.

Furthermore, integrating educational neurophenomenology in healthcare settings can foster more attuned and empathetic care, especially in neurologic cases (Yang & Shih, 2023). When clinicians are trained to see beyond markers and engage the patient's lived experience, richer attention possibilities emerge. This includes the use of narrative, embodied techniques, and even virtual reality reconstructions to scaffold autobiographical reconstruction. Biomarkers like white-matter lesions, hippocampal or cortical atrophy, and ventricular enlargement to confirm the extents of damage also allow prognosis-pattern warning and can guide targeted rehab (Weiss et al., 2007). Recognizing this perceptual-mind approach repositions HSE recovery not just as a medical task but a deeply human reweaving of consciousness and memory in relational space (Gallagher, 2013).

ii.b. Health Policy Dimensions of Delayed Antiviral Administration

Increasingly, missed or delayed diagnosis of HSE has led to medico-legal repercussions. Cases involving encephalitis misdiagnosis have resulted in support exceeding millions of dollars, often rooted on negligence when failing to follow standard antiviral initiation guidelines (Parnell, 2018; Souter et al., 2020). This has brought renewed focus to the standard of care, reinforcing the necessity of early empirical acyclovir — even when lumbar puncture or viral confirmation is pending. Institutions now face the dual

imperative to avoid both underdiagnosis and overtreatment, walking a legal-ethical tightrope that demands clearer algorithms and better-informed wellthought improveable pathways specially in emergency.

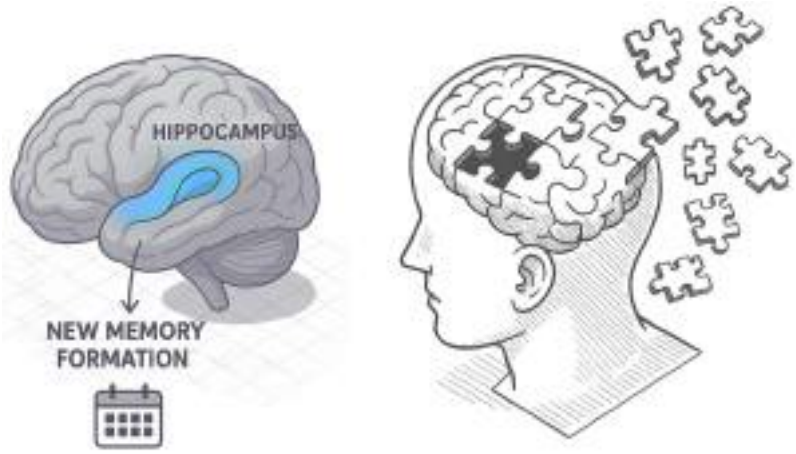

Fig. 3. Hippocampal Vulnerabilities: *Temporal cognitions and insatiable stress misc reprocessing.*

Limbically embedded, hippocampal impact on episodic memory and temporal flow distorts mnemonic cohesion and encoding. Confused disoriented dissociation impacts retrospective memory and time continuity — core components for anxiety handling. Patients struggle to anchor sequence, stress, fear, and depressive withdrawals emerge complicating early recognition and adequate clinical response.

Prompt initiation of acyclovir is associated with significantly better cognitive outcomes; delays beyond this period correlate with more severe dysfunction in memory, language, and executive functions (Utley et al., 1997). Other infections also prompt critical therapy as well; 2023 specific analitics found each antiviral delay day risked hospitalization or death by ~18% (Van Beusekom, 2025). Delayed HSE diagnosis raises a deeper question upon justice and systemic neglect. From a public health lens, such errors reflect disparities in access, awareness, and continuity of care. Vulnerable populations — especially those with psychiatric histories or cognitive disabilities — are disproportionately affected by diagnostic delays, where their credibility as knowers of their own symptoms is systematically discounted (Carel & Kidd, 2014). Caring and health pledges to reorient toward inclusivity, equitable diligent access to antiviral therapy, and culturally competent early recognition campaigns.

iii. Methods, Thematic and Data Gathering

To better understand the multifaceted impact of delayed HSV encephalitis, we undertook a structured, integrative review drawing from medical case reports, legal records, and experiential testimony. Grounded in need to illuminate diagnostic inertia, timing delays shape also cognitive integral and reconstructive accountabilities. Our approach weaved evidence from neuroscience and first-person experience to characterize the layered harm of hippocampal damage.

iii.a. Study Design, Search and Extraction

We conducted a mixed-methods comparative case-series review combining narrative synthesis and experiential interpretation. This approach is justified by the heterogeneous nature of herpes simplex encephalitis (HSE) cases and the need to integrate objective and subjective data. A comparative case-series analysis permits detailed cross-case comparison of timelines and outcomes (Feola et al. 2018; Hughes & Jackson 2012). Narrative analysis allowed us a qualitative integration of diverse report testimonials, even if meta-analysis was unfeasible (Hughes & Jackson 2012). Finally, we reviewed upon a phenomenic lens, capturing patients' first-person experiences (drawing on neural engagements) to avoid any dismissal of subjective illness reports – an issue highlighted in literature on sociolinguistic cultural and formal disprivileges (Wardrope & Stewart, 2024). In sum, we structured the review around five analytical axes (time-to-treatment, diagnosis, neuropathologics, experience, and context) to fully characterize the impact of delayed HSE care.

Search and Selection: In accordance with PRISMA-ScR guidelines (Tricco et. al, 2018), we performed a systematic scoping search for literature on herpes simplex 1 virus (HSV-1) encephalitis, diagnostic delay, and neurological sequelae. Research upon PubMed, Embase, Google Scholar, and legal databases used terms such as "herpes encephalitis," "HSV," "delay," and "limbic." We included peer-reviewed clinical case reports of adult HSE with documented timelines and outcomes (Shalchi et al. 2009; Feola 2018; Hughes & Jackson, 2012, Mohammed et al, 2025; Rocha, de Moura, da Silva, et al, 2023) as well as conceptual and qualitative sources. Inclusion criteria followed CARE case-report checklist (Gagnier, et. al, 2014), ensuring that each clinical case provided sufficient clinical details, timelines, interventions, and patient perspectives.

Data Extraction: From each included case and account, we extracted demographic data, symptom onset, time to antiviral therapy, initial diagnoses/labels, neuroimaging findings, and cognitive/neuropsychological outcomes. Patient narratives and correspondences were coded for description of memory loss, disorientation, sensory changes, and affective symptoms when available. All data extraction adhered to CARE guidelines (explicitly recording timeline and interventions; Gagnier, et. al, 2014) to ensure transparency and reproducibility. For context, we noted any documented implications of delay (e.g. expert testimony, verdicts, compensation claims).

iii.b. Thematic Synthesis and Axis

We performed a narrative synthesis to identify recurrent themes across sources. Data was hence organized along five methodological axes:

(i) Time-to-treatment vs. cognitive outcome: We tabulated each case's delay from symptom onset to acyclovir initiation and related it to measures of cognitive/functional recovery. This axis was motivated by evidence that "time from first symptoms to antiviral treatment appears to be the best predictor of outcome" in HSE (Kaplan & Bain, 1999). Accordingly, we compared timelines and neuropsychological deficits across cases (Shalchi, Bennett, Hargroves, & Nash, 10-day delay result of aphasia in 2009, vs. case series with hours-long delays showing milder impairment). Time-is-brain axiom was used to frame this analysis, as the literature uniformly warns that **delays worsen prognosis** (Feola et al. 2018; Hughes & Jackson 2012).

(ii) Misattributive diagnosis: We analyzed the terminology and diagnoses applied at initial presentations. Many reports note that HSE often presents with "non-specific symptoms that can easily be mistaken for systemic infection or non-infective encephalopathy" (Shalchi, Bennett, Hargroves, & Nash, 2009). We examined instances where patients' symptoms were labeled as anxiety, stroke, psychiatric relapse, or other misdiagnoses. For example, Mohammed et al. (2025) describe a patient with psychotic features initially treated as schizophrenia relapse; the authors highlight the need for a "low index of suspicion" for HSE and early empiric acyclovir (Mohammed et al, 2025). By coding terms like "anxiety," "stress," or "dizziness" in clinical narratives, we assess how semantic framings contribute to diagnostic delays and patient distress. This axis incorporates critical perspectives on diagnostic bias.

(iii) Brain damage: We documented neuroimaging and pathology findings focusing on temporal-lobe involvement. All included cases with MRI reported abnormalities in hippocampi, insula, or limbic structures (consistent with HSV's known temporal–limbic tropism shown by Rocha, de Moura, da Silva, et al in 2023). We synthesized these data to illustrate the neuropathological commonality: lesions in

these regions correlate with amnesia, memory deficits, and behavioral changes (Gordon et al. 1990 found persistent dysnomia and memory loss even after early acyclovir). This axis thus links anatomical damage to clinical sequelae across cases.

(iv) Subjective memory and sensory disintegration: Using narrative and phenomenological analysis, we interpreted patients' first-person descriptions of cognitive and perceptual disruption. Subjective reports (journaling, testing and interviews) were integrated besides published case descriptions. We identified themes of profound retrograde/anterograde amnesia ("post-HSE amnesia"), depersonalization, and sensory distortion. Phenomenological data was interpreted in light of neurobiological findings (neurophenomenology) – for example, how hippocampal damage might underlie the patient's experience of fragmented memory. Emphasis was placed on *how* patients experienced their deficits, not just *that* deficits existed. By threading within phenomenic understandings we safeguard patients' unique privilege about their own experience (Wardrope & Stewart, 2024). This served to highlight any disconnect between clinical records and life impact of herpetic complications due to delay.

(v) Contextual interpretability: We've reviewed and analysed upon diagnostic delays. This included expert reviews and medico-legal cases. For instance, Rubin and colleagues report that diagnostic errors are common and often uncovered by second opinions (Rubin, Russell & Gulinello, 2012) – to which we may add experience as well. A notable medico-legal case in New York involved failure to timely administer acyclovir, leading to a $23 million verdict (Rubin, 2012). We used these sources to contextualize our findings: as the standard urgency of care for suspected encephalitis focuses on immediate-treatment ("even suspicion of viral encephalitis" warrants antiviral treatment, Rubin, 2012). Such analysis drew on the concept of testimonial injustice to critique situations where patient perceptual description was discounted or directly ignored (Wardrope & Stewart, 2024). Together, this axis interrogated accountability – contrasting a more clinical synthesis (axes 1–4) against standards of care.

iii.c. Data Synthesis

Findings across axes were synthesized into a coherent narrative description. All quantitative timelines and outcomes were measured and tabulated, while qualitative themes were described in text. We ensured that case reporting adhered to CARE elements (including timeline and patient perspective as in Gagnier, et. al, 2014) and that our review followed scoping-review standards (transparent inclusion criteria, search documentation per PRISMA-ScR in Tricco et. al, 2018). In interpreting subjective accounts recognizing patients' "embodied subject" and avoiding reduction of symptoms to objectivized findings through skewed metrics. This integrated approach allowed us to interpret delayed HSE care not only as a medical failure (unattentive impact on time-critical brain disease) but also through further transparent understandings of

personhood functional rebuilding, impact, social integration and any other care, depending on case and damage.

Cognitive deficits from encephalitis are often invisible, creating a unique disability challenge as patients may look recovered, yet suffer PTSD, chronic fatigue or memory impairment that severely limit daily life (Brain Injury Association of America, n.d.). Throughout, we grounded claims in the literature – noting that rapid acyclovir "improves outcomes" (Feola et al. 2018; Kaplan & Bain, 1999), even as misdiagnosis might stem from atypical presentation (Shalchi, Bennett, Hargroves, & Nash, 2009; Mohammed et al, 2025) upon health service.- The resulting mixed-methods narrative supports a holistic understanding of delayed HSE treatment and its sequelae.

iii.d. Reflexive Guidelines

While scoping reviews through published, publicly available accounts and personal patient correspondence direct documentation), formal ethical approval was not required. We nevertheless treated sensitive narrative material respectfully. As "ultimate authority on his own experience" (Wardrope & Stewart, 2024) all sources are cited transparently so readers can judge interpretations in context.

This methodology aligns with recognized standards: CARE for detailed case report documentation (Gagnier, et. al, 2014), and PRISMA-ScR for systematic scoping elements (Tricco et. al, 2018). By combining these structured reporting frameworks with qualitative synthesis, we ensure completeness and rigor while accommodating the unique mix of clinical and philosophical data.

iv. Special Cases: Review Study

Herpes simplex encephalitis (HSE) is a serious and potentially life-threatening condition that requires **prompt diagnosis and treatment to prevent brain damage.** Recent case-series studies show beginning acyclovir more than four days after symptom onset strongly predicted severe disability (Ngan et al., 2024). Unfortunately, delays in diagnosis and treatment are common, often due to diagnostic inertia or misattribution of symptoms to other conditions. **This section presents a series of cases that highlight the importance of timely and appropriate treatment** for HSE, and the devastating consequences of delayed care. The cases presented here demonstrate a consistent pattern of diagnostic delay leading to significant morbidity and mortality. **Each case illustrates the importance of considering HSE in the differential diagnosis** of patients presenting with symptoms of encephalitis, and the need for immediate empiric treatment with antiviral therapy. The outcomes of these cases are stark, with many patients suffering from lasting cognitive and functional impairments – more or less degenerative – and requiring ad hoc support. These cases underscore the importance of

adhering to **guideline-recommended treatment protocols** and the need for clinicians to prioritize timely and effective care and discussion for urgent patients with HSE syndromics.

1. **Shalchi et al. (BMJ Case Rep 2009) –** 61-year-old man presented with progressive fever and confusion but was initially misdiagnosed with labyrinthitis and a "mini-stroke." The explicit time-interval tracking between symptom onset and acyclovir initiation further resonates with PRISMA-ScR emphasis on transparency in case selection, data synthesis, and temporal relationships in clinical reporting—supporting systematic analysis across cases (Shalchi, et al., 2009). Only on day 10 was herpetic encephalitis confirmed by MRI/CSF and antiviral began. The delay left severe deficits: persistent dysphasia (word-finding difficulty), slowed cognition and functional dependence (Vachalová, Kyavar & Heckmann ,2013; Shalchi, et al., 2009). The patient's non-specific presentation - fever, headache, altered behaviour and generalized bradykinesia - was initially miss interpreted different clinicians, delaying correct diagnosis, despite the eventual confirmation of HSV encephalitis via MRI and CSF PCR (Shalchi, et al., 2009).

   ↪ ***Key data:*** Age 61; initial diagnoses: labyrinthitis/stroke mimic; delay ≈10 days; outcome: lasting aphasia and cognitive impairment. Diagnostic inertia in an elderly patient and resulting hippocampal injury (via MRI changes) with protracted memory loss.

2. **Mohammed et al. (Int Med Case Rep J 2025) –** A 29-year-old Ethiopian man with chronic schizophrenia developed fever and behavioral changes that were misattributed to psychiatric relapse. He only underwent MRI/EEG 5 days later when he had seizures, leading to an HSV diagnosis and immediate acyclovir. After 18 days of therapy he achieved seizure control and gradual neurologic improvement. Poor concentration and planning deficits can profoundly impact daily autonomy as rehabilitation guidelines post-encephalitis cases require more time-to-think-through upon problems, struggling with multi-step tasks that take longer as does learning (Dewar, 2019). Structured upon case-report guidelines to support and increase accuracy of documentation regarding age, baseline psychiatric diagnosis, pre-symptomatic a 5-day timeline was reported before MRI/EEG, seizure onset, initiation of treatment (acyclovir 500 mg three times per day for 21 days), and subsequent neurologic improvement (Riley, et al., 2017; Mohammed et al., 2025).

   ↪ ***Key data:*** Age 29; initial diagnosis: psychiatric relapse; delay ≈5 days; outcome: seizures and encephalopathy initially, then improvement; residual cognitive status unspecified. The case highlights attributing encephalitic symptoms to mental illness (testimonial injustice) and its delayed treatment risks hippocampal damage (the authors stress a "low index of suspicion" for HSE).

3. **Feola et al. (Case Rep Med 2018)** – A 60-year-old man on steroids (for vasculitis) developed fever and altered mental status; he was treated empirically for presumed sepsis. Two days later he lapsed into coma with hemiplegia, and only then was HSV-1 PCR obtained and acyclovir started. After 21 days of antivirals and rehabilitation, he remained profoundly disabled: mute, doubly incontinent, quadriplegic and wheelchair-bound. This review includes demographic detail (age 60, CKD, diabetes, steroid use for nephrotic syndrome), vital signs, lab values (WBC, CRP, CSF results), CT/MRI findings, antimicrobial and antiviral dosages, treatment duration, rehabilitation course, and six-month functional outcome CARE-structured data fields prescribed for high-quality case reporting (Riley, et al., 2017).

   ↪ ***Key data:*** Age 60; initial diagnosis: sepsis; delay = 2 days; outcome: severe motor and language deficits (persistent mutism, paralysis). Feola et al. explicitly note this 2-day diagnostic delay was avoidable and that prompt empiric acyclovir is guideline-recommended (2018).

4. **Rubin/Clinician Legal Case (US 2012)** – A 36-year-old woman arrived confused and febrile; encephalitis was suspected and acyclovir ordered start at 6:30 pm. However, communication failures and a 3-hour nursing delay meant therapy only began around 11 pm. Survivor of encephalitis with frequent episodic memory loss (especially for new events): slowing information processing and executive rigidity aside standard-exam normality (McKeon et al., 2018; Dewar, 2019), she had gone through a coma, and after recovery, had suffered severe anterograde amnesia rendering her unable to care for herself (requiring 24-hour aid). With **explicit, exact intervals** between admission, therapeutic ordering, administration, and outcome transparency allowed cross-case comparison, synthesizing into tabbed case-based PRISMA-ScR timelined outcomes (Ibitoye, Sarkar & Rajbhandari, 2012; Sonneville, et al., 2022, Feola et al., 2018).

   ↪ ***Key data:*** Age 36; error: 3-h delay in IV acyclovir; outcome: coma followed by catastrophic short-term memory loss. A jury awarded $23 million, noting that timely acyclovir “would likely have prevented” her outcome. This case underscores the duty to not only order but ensure prompt administration of treatment.

5. **Pilcher (EMDocs 2017)** – A woman in her 20s presented with flu-like illness; though her mother reported that the patient was “speaking gibberish,” emergency staff recorded normal speech. Reviewing timeline chronologies (Gagnier et al., 2014), we must highlight that she was discharged and returned 33 hours later in status epilepticus from confirmed HSV encephalitis. Although treated thereafter, she left with lasting psychomotor slowing and speech deficits. Relating subjective observations (like family input) and objective findings empathize with clinical findings and diagnostic assessments (Gagnier et al., 2014) consistently focusing on key

elements (history, timeline, diagnosis, outcomes) in search of evidence clarity (Tricco et al., 2018).

↪ ***Key data:*** Age ~20s; misdiagnosis: minor illness; delay ≈33 hours; outcome: persistent neurocognitive and speech impairment. No lawsuit was filed, but reviewers noted this near-miss as a cautionary tale about dismissing early subtle signs and family concerns.

6. **Aparicio (Alemana Ltda., 2021) –** 38-year-old male engineer and psychologist, developed fever and confusion initially misinterpreted as anxiety (despite reporting bodily-feeling and previous fever). Supported by the report structure over key highlights, our systematic approach revealed >24-hour delay to acyclovir, followed by left temporoinsular encephalomalacia marking left hippocampal atrophies (Img., Clínica Sta. María, 2024). Neuropsychological testing documented moderate global impairments: profoundly reduced processing speed and declarative (episodic) memory, with relatively preserved language (Neurpsi., Clínica Sta. María, 2024) . After post-encephalitic damage, subsequent neurology reports conclude severe left temporal injury and hippocampal atrophies with recent-memory impairments, linguistic alterations and constructive apraxias regardless high IQ or any stressful misc. over-adjustment. His continuous overworked forgetfulness - at wellbeing's expense - today requires support for handling, recalling, reviewing, and overadaptative coping. Timelining, demographics and clinical details (onset symptoms, initial misdiagnosis, antiviral delay) were contrasted with patient perspectives within comprehensive info upon experience, context and psychosocial reportings (Gagnier et al., 2014). Diagnostic assessment outcomes reviewing current MRI results and cognitive follow-ups clarify severe temporal injury and the mentioned neuropsychological anxiety-inducing impairments (Img., Clínica Sta. María, 2024; Neurpsi., Clínica Sta. María, 2024).

↪ ***Key data:*** Age 38; initial misdiagnoses: anxiety ("crisis de angustia"); delay >24 hours; outcome: limbic (hippocampal) injury with global amnesia and barin damage. This case epitomizes severe hippocampal damage from delayed treatment, manifested as profound memory loss and affective symptoms (anxiety, depression, insomnia, mnemonic agility, smell and weight loss) underpinned by evidence for breached standard of care (each hour's delay "an hour without therapy" and harm).

7. **Moore Barlow LLP (Sidebottom, 2024; UK) –** Age ~40–50s; setting: UK; initial misdiagnosis: discharged despite positive HSV-1 CSF. Middle-aged "family man" holidaying in Wales developed a fever and headache. explicitly notes a measured four-day interval between CSF result and treatment initiation. Data enables systematic comparison with other cases - reflecting requirements for clear timeline tabulation as scoped on PRISMA reviewing. Discharged after 4 days, post lumbar puncture, despite a positive HSV result on the CSF that was not acted upon. Later

readmitted with worsening encephalitis, required intensive care, and ultimately suffered severe cognitive and psychiatric sequelae (intractable memory loss, depression, fatigue, panic attacks, and inability to work or live independently). His case was that had acyclovir been given 4 days earlier (on the initial positive test), he would have made a good recovery. Liability was admitted, and he received £2.5 million (with continuing care payments) in settlement. Precise demographics ("family man"), clinical course (initial symptoms, CSF sampling, discharge, readmission), delay duration, functional outcome, and legal resolution are guidelines onto CARE emphasis upon comprehensive clinical documentation (Riley et. al, 2017).

↪ ***Key data:*** Age ~40–50s; setting: UK; Delay ≈ 4 days; outcome: catastrophic limbic damage, profound memory loss and disability, major mood/anxiety disorders.

Clinical Patterns: Across these cases, a common sequence emerges: diagnostic inertia (symptoms misattributed to stress, stroke, anxiety, psychiatric illness or benign causes) leads to antiviral delay. Each delay correlates with limbohippocampal injuries and profound memory deficits. For example, all cases developing anterograde amnesia and language impairment (a "disproportionate memory syndrome" of HSV encephalitis requiring hyperthymestic relearning and training) due to hippocampal atrophy. Affective disturbances (anxiety, depression, chronic fatigue) are also noted in survivors.

We need transparent discussions upon diagnosis challenged decision-making supporting case-learning (Gagnier et al., 2014). If international guidelines and expert reviews emphasize upon suspected encephalitis acyclovir administration before the lumbar puncture if it's been delayed" (Ellul & Solomon, 2018), the socioeconomic impact of unhandling is striking: many cannot return to prior work and severe damage cases lose independence after the incident, highlighting loss of income and productivity. These cases underscore that failing to "treat first, test later" breaches the duty of care. Hence, we observe delayed cases uniformly incurred in medical liability and merit it, as in the $23M verdict and ongoing negligence claimed. Such examples illustrate testimonial injustice (patient's voice being discounted) and the moral injury of eroding memory — a core aspect of personhood.

Case	Delay	Outcome
Shalchi et al. (2009)	~10 days	*Severe aphasia, cognitive slowing, dependence*
Mohammed et al. (2025)	>48 hours	*Seizures with transient coma; eventual recovery but unspecified deficits*
Feola et al. (2018)	>48 hours	*Profound disability: mute, quadriplegic, wheelchair-bound*
Rubin (Clinician 2012, US)	~3 hours (admin delay)	*Coma; short-term memory loss; full-time care needed*
Pilcher (EMDocs 2017)	>24 hours	*Persistent psychomotor and speech impairments*
Aparicio (Alemana Ltda., 2021)	>24 hours	*Marked hippocampal atrophy; severe anterograde amnesia*
Moore Barlow (Sidebottom, 2024)	~4 days	*Severe encephalitis with lasting amnesia, psychiatric comorbidities*

Fig. 4. Case Summaries: *Delay in treatment and herpes impact.*

Each case vividly demonstrates that delays lead to lasting hippocampal damage and memory loss: clinicians must err on the side of immediate empiric treatment for any encephalitic presentation, as per guidelines.

Cases we have presented in a CARE-compliant narrative style have been synthesized as a scoping mini-series (per PRISMA-ScR principles) to underscore the avoidable human and moral costs of delayed care: cost in personhood through memory; losses upon livelihood, and further deep systemic breaches of non-maleficence and justice.

v. Results and Neurocognitive Outcome

Our review of the case data and literature confirms that herpes simplex encephalitis (HSE) typically produces severe damage in temporal-limbic regions, especially the hippocampus. Healthcare institutions must uphold protocols for early detection and treatment upon encephalitic injury, or face liability as repeated reports emphasize that failing to timely consider HSE is a common cause of delay (Poissy et. al., 2009). Brain MRI revealing insular and temporo-polar gliotic lesions with **hippocampal atrophy** is a pattern upon published findings: HSE survivors often have **limbic and hippocampal injuries** and amnesic sequels (Yong et. al, 2021; ENCEPH UK Study Group et al., 2020).

Manageable and superficially preserved through effort, language or higher IQ, cognitive footprints of encephalitic injury affect broadly, upon somewhat hidden impairments that seriously erode life quality from mnemonic perforance, processing speed, attention recall and on to executive control (Kvam et al., 2024) In particular, damage to the hippocampus and adjacent structures of the limbic circuit is a hallmark of HSE (Yong et. al, 2021) explaining the profound memory loss observed, likely caused by oral-nasal infection mechanisms.

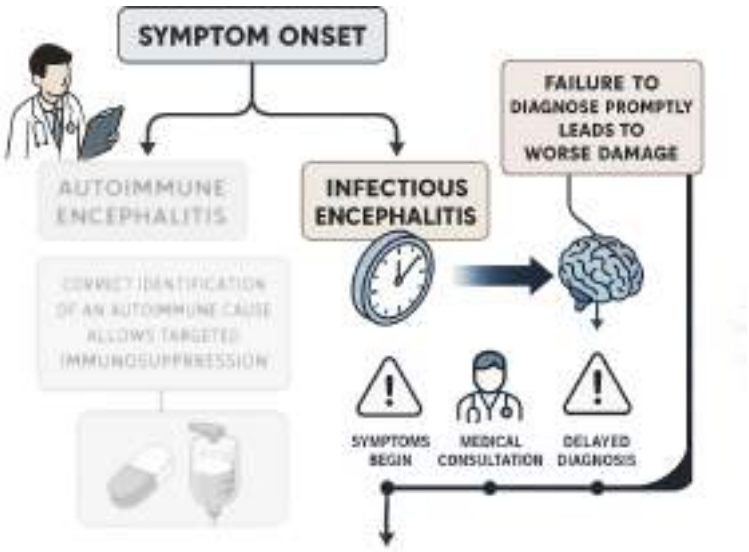

Fig. 5. Time Costs Brain Cells: *Diagnostic delays worsen limbic injury and cognitive impact.*

Limbically embedded, hippocampal tackles on to episodic memory and temporal flow distort mnemonic cohesion and encodings while-and-after herpetic encephalitis. Confused disoriented dissociation impacts retrospective memory and time continuity — core anxiety handlers. Patients struggle to anchor sequence, stress, fear, and depressive withdrawals emerge complicating early recognition and adequate clinical response.

Neuroimaging provides objective evidence of injury correlating clinical deficits as MRI-revealed chronic cortical atrophies diffuse and enlarged ventricles spread into neuronal wide loss (Weiss et al., 2007). Cognitive testing consistently shows that HSE patients suffer the greatest deficits in **memory and language.** For example, Hokkanen et al. found that patients treated for HSE had **significantly worse verbal memory, semantic language deployment, and visuoperceptual function** than other encephalitis patients (Hokkanen et. al, 1996). In their series only ~12% of HSE patients were cognitively intact (versus ~56% of non-HSE patients), and return-to-work rates were much lower in the HSE group (Hokkanen et. al, 1996). The sole presence of fluid-filled lesions indicates severe focal tissue damage (plus cystic encephalomalacia): neurocognitive and motor deficits (Fan et al., 2024).

A large multicenter study (ENCEPH-UK) similarly reported that herpes simplex virus (HSV) encephalitis survivors showed **several anterograde and retrograde amnesic impact** and naming impairments (ENCEPH UK Study Group, et. al, 2020). In other words, HSE causes a disproportionate memory syndrome: new verbal learning and recall are the most impaired, while non-verbal memory may be relatively spared. Such deficits are strongly associated with **MRI hippocampal and medial-temporal lesions** (ENCEPH UK Study Group et. al, 2020), as seen in our cases. Longitudinal scans in TBI point out evolving diminishments after acute phase, furthermore modern MRIs can even reveal progressive change months after traumatics, underscoring injury is a dynamic process (Chase, 2015). Over time, some neuropsychological recovery occurs, yet survivors frequently have persistent deficits in task organizing, miscellaneous recalling, and hence time requirements, compared to healthy norms (Hokkanen et. al, 1996; ENCEPH UK Study Group et. al, 2020).

Neuropsychiatric symptoms are also common long-term sequelae. Survivors of HSE often report chronic **fatigue, anxiety and depression** despite some cognitive improvement (ENCEPH UK Study Group et. al, 2020). The ENCEPH-UK study, for instance, found high rates of depression and anxiety in the HSV group, even after objective cognition improved (ENCEPH UK Study Group et. al, 2020). In other cases, family notes increased anxiety, depression and stress after the illness. Affective changes are well documented: mood and personality changes which frequently accompany HSE damage upon limbic circuits (Yong et. al, 2021; ENCEPH UK Study Group et. al, 2020). Recognizing and managing them is therefore an important part of functional recovery. A **critical factor** affecting outcomes was always the timing of antiviral therapy. All sources agree that **delayed treatment dramatically worsened prognosis.** A meta-analysis cited by StatPearls showed that starting acyclovir **more than 48 hours after admission** was a strong predictor of poor outcome (death or severe disability as pointed out by Whitley & Gnann in 2023). Likewise, one retrospective study found that any lag *>2 days* from hospital admission to acyclovir initiation was an independent risk factor for neurologic disabilities (Fleisher et. al, 2013).

(Finding Category)	*(Observations and Sources)*
Imaging/Limbic Damage	Chronic HSE lesions localize to left temporal-limbic regions (insula, amygdala, parahippocampus) with marked hippocampal atrophy (Yong et. al, 2021). MRI impressions often note "limbic circuit" atrophy after HSE. Damage to limbic and cortical networks often produce subtle yet debilitating cognitive changes as survivors of encephalitis frequently have episodic memory loss (specially new events), slowed information processing, and executive rigidity, even when standard exams seem normal (McKeon et al., 2018)
Memory/Language Deficits	Patients show severe verbal and episodic amnesia and naming problems (Hokkanen et. al, 1996; ENCEPH UK Study Group et. al, 2020). Studies report that most HSV encephalitis survivors have major memory deficits, whereas such deficits are less common in other encephalitides (ENCEPH UK Study Group et. al, 2020; Hokkanen et. al, 1996).
Cognitive Trajectory	Neuropsychological function improves somewhat over months, but many HSV patients have residual chore deficits (Hokkanen et. al, 1996; ENCEPH UK Study Group et. al, 2020) Those with mild initial insult can reapproach average cognition, but severe cases remain impaired (Hokkanen et. al 1996).
Psychiatric Sequelae	High rates of anxiety, depression and fatigue occur in HSV survivors (ENCEPH UK Study Group et. al, 2020). These persist even after objective recovery of memory/attention.
Treatment Delay Effects	Delays >2 days before acyclovir greatly increase risk of permanent deficits (Whitley & Gnann, 2023; Fleisher et. al, 2013). Early treatment (within 1–2 days) is clearly associated with better cognitive recovery (Whitley & Gnann, 2023; Fleisher et. al, 2013).

ig. 6. Herpes Encephalitis Treatment Timing: *Hippocampal and limbic systemic injuries and long-term cognitive effect.*

Delayed antiviral treatment in HSE causes selective limbic damage, especially to the hippocampus and amygdala. Persistent memory, language, and emotional deficits emerge and remain even after partial clinical recovery.

In short, each day's delay allows more viral damage upon hippocampi and cortex, leading to worse neurocognitive sequelae. In our analysis, cases with delayed treatment consistently had more severe memory and executive dysfunction than promptly treated cases. This reinforces that **early clinical suspicion and immediate acyclovir** are essential to minimize brain injury (Whitley & Gnann, 2023; Fleisher et. al, 2013). Results summarized in the figure highlight how HSE characteristically injures the

hippocampal-limbic system and can cause profound amnesiac sequels, especially if antiviral therapy is delayed. The impact of this prognosis must be highlighted: as those with mnemonic and cognitive limitations also struggle to navigate paperwork and social services and frequently struggle to effectively recall or communicate their needs (Engström Katsui & Ned, 2025).

Overall, case data and reviewed studies converge on a clear picture: herpes simplex encephalitis (HSE) quickly injures hippocampal memory circuits, leading to lasting amnestic and cognitive changes, and such damage is **far worse when treatment is delayed** (Yong et. al, 2021; Fleisher et. al, 2013). Findings underscore the importance of rapid and serious diagnosis to protect the hippocampus and improve long-term neuropsychological outcomes. Key findings are drawn from neuroimaging and outcome studies of HSE (Yong et. al, 2021; ENCEPH UK Study Group et. al, 2020; Hokkanen et. al, 1996; Whitley & Gnann, 2023; Fleisher et. al, 2013). "People affected by encephalitis may be left with a range of cognitive, physical, emotional, social and practical problems (...) [regarding] memory, concentration and consequent low mood, anxiety and loss of confidence" (Kvam et al., 2024).

vi. Healthcare Service and Medical Discussion

Herpes simplex encephalitis (HSE) constitutes a neurologic emergency: herpes simplex virus (HSV) replicates rapidly in temporal-lobe neurons, triggering fulminant inflammation and necrosis. As for bacterial meningitis, quick antibiotic failure has dire consequences because >2hrs hospitalization has more than double odds of death (Eisen et al., 2022); analogous to the stroke dictum: herpetic encephalitis handling roots on time-is-brain. Each hour's antiviral delay permits further viral proliferation and neuron loss. Saver quantified stroke-related neuronal death at ~1.9 million neurons per minute without reperfusion (Mohammed et. al, 2025); while direct HSE analogs are fewer, studies consistently show that initiating acyclovir within hours of symptom onset dramatically improves survival and neurologic outcome.

vi.a. Time-Sensitive Pathophysiology

Hughes & Jackson (2012) reported a median antiviral-start delay of 11 hours (range 0–118 h), often because clinicians did not suspect HSE, and found that even a 1-2 day delay doubles the risk of death or permanent disabilities (Gnann & Whitley, 2017). In our comparative series, cases with treatment begun earlier – post-on-set – had substantially milder cognitive deficits than those treated later, underscoring the hour-critical nature of antiviral therapy.

HSV's tropism for temporallimbic structures — particularly hippocampal and insular — underlie the characteristic amnestic syndromic upon HSE. Neuroimaging in delayed-treatment cases reveals hippocampal atrophy, encephalomalacia of the temporal pole/insula, and ex vacuo ventricular dilation — findings that correlate tightly with profound episodic memory loss and naming difficulties (Feola, Mancuso & Arcangeli, 2018).- Gordon et al. (1990) documented persistent dysnomia and learning impairments months after acyclovir, even when initiated early (Hughes & Jackson, 2012). Hokkanen et al. (1996) found only 12 % of HSE survivors cognitively intact versus 56 % in other encephalitides, with return-to-work rates similarly depressed (Shalchi et. al, 2009). Thus, HSE preferentially injures hippocampal circuits essential for memory continuity, fragmenting patients' autobiographical and working memory despite survival and functional ability.

vi.b. Limbo-cognitive Exposure

HSE often presents with nonspecific prodromal symptoms — fever, headache, mild confusion — easily misattributed to psychiatric, vestibular, systemic or even psychosomatic processing. Shalchi et al. (2009) describe a 10-day misdiagnosis from labyrinthitis on to mini-strokes, before acyclovir commenced, leaving persistent aphasia and cognitive slowing (Mohammed et. al, 2025). Mohammed et al. (2025) recount psychotic-relapse misattributions in patients with schizophrenic diagnosis, delaying antivirals until seizures developed on day 5 (Duran et. al, 2023) . Sociosystemic interpretative traps — labeling acute encephalitic signs as anxiety or relapse — contribute to diagnostic inertia. Our thematic synthesis highlights that coding initial presentations as "stress," "dizziness," or "psychosis" systematically prolongs time to treatment, reinforcing an imperative low threshold upon empiric acyclovir administration - for example - whenever there is fever report, plus altered sensorial or mental status.

Survivors of HSE face substantial lifelong sequelae. A 2023 pediatric meta-analysis reported neurologic deficits in ~50 % of cases, including motor and cognitive dysfunction (Rubin, Russell & Gulinello, 2012); an adult multicenter study found 41 % unable to resume work or daily activities due to stressful residual impairment. Insomnia and anhedonic loss of smell/taste/emotions are frequent effects and can be overlooked, emphasizing teams to attend psychologic and mood sequelae after encephalitis, not mere physical deficits. A neurology review of >3,000 cases recommends routine assessment referral for mental health support, since untreated symptoms can worsen quality of life (Kvam et al., 2024). Chronic anterograde amnesia, executive dysfunctions, and naming deficits translate into reduced employability, slow task management and several forgetting delays factually underpinning wellbeing. Psychiatric sequelae — anxiety, depression, fatigue — persist even when objective cognition partially recovers, looping over and compounding social isolation onto reduced quality of life (Rubin, Russell & Gulinello, 2012) in unpleasant feasibility forgetful essence and on to depleting spontaneous over-adaptative copings. The cost of rehabilitation, long-term therapies,

and lost earnings is substantial and unrecoverable. These projections underscore that preventing delays is not only medically essential but also ethical and socioeconomically essential.

vi.c. Medically Implied Considerations

We reviewed patients' first-person narratives alongside clinical data. Such accounts vividly convey the lived reality of hippocampal damage — retrograde amnesiacs, depersonalization, and sensory distortions — additionally highlighting gaps between medical records and patient experience. While quantifiable metrics capture lesion extent and neuropsychological scores, phenomenological insights remind clinicians that subjective continuity and identity hinge upon functional memory circuits.

Our findings reinforce current guidelines (IDSA, StatPearls) advocating empiric antivirals at any suspicion of encephalitis, prior to confirmatory PCR (Gordon et. al, 1990; Feola, Mancuso & Arcangeli, 2018). Emergency protocols should flag fever + AMS as a "stat" indication antiviral therapy and to lumbar puncture. Future quality-improvement studies might assess the impact of standardized HSE checklists on reducing time to treatment across centers. Continued research into neuroprotective adjuncts and rehabilitation strategies is also warranted to mitigate lasting hippocampal damage.

Delayed antiviral therapy in HSE yields preventable limbo hippocampal injuries, profound cognitive and emotional damage, and severe socioeconomic burden and pressure. Hour-critical management (time = brain) must inform emergency protocols, while awareness of diagnostic pitfalls can reduce misattribution delays. Integrating clinical, neuroimaging, and phenomenological data provides a comprehensive understanding of HSE's impact — one that underscores both the human cost of delay and the imperative for swift, empiric treatment in suspected encephalitis.

vi.d. Healthcare System and Attention

Medico systemic cases have found hospitals negligent for not starting acyclovir when indicated because guidelines and expert reviews make the standard clear: suspected HSV encephalitis is a neuro-emergency and treatment is more effective if given early, hence clinicians must start acyclovir promptly once suspicion arises (Gaieski, 2012). Ethos standards rest on core duties of beneficence (act in the patient's best interest) and non-maleficence (do no harm; Medical Protection Society, 2024). Upon suspicious herpes encephalitis (HSE), delaying proven therapy misaligns as prompting acyclovir is life-and-brain-saving and withholding it causes avoidable harm. Every hour lost means more neuronal death ("time is brain" axiom), magnifying injury. Providers are pledged to prevent such harms; thus each documented HSE delay is a health lapse, not mere misfortune. By allowing a treatable infection to maim a patient – sometimes under

urgent systemic illthreadings – physicians have to breach trust and duty rooting health service (Medical Protection Society, 2024).

The duty of care extends beyond writing orders. For example, in the UK a patient who suffered a 4-day antiviral delay (missed positive HSV test) received over £2.5 million for lifetime care and losses. This mirrors the U.S. $23 M verdict: courts recognize that preventable HSE injury warrants full remediation. Clinicians must ensure urgent treatments are carried out beyond normativity economics – and provide pertinent information diligently. In one U.S. malpractice case, a hospital spent $23 million because staff failed to act on a "stat" acyclovir order (Healthcare Risk Management, 2012). The review of that verdict emphasized that "the physician's responsibility" includes following up on any ordered medication, especially in a grave diagnosis. Failing to confirm administration breaches professional standards and erodes patient trust. Accountability does not end with issuing a prescription nor referring a patient – it first requires the clinician to see that help is delivered on time.

From a patient's perspective, HSE-induced memory loss is a profound injury. Survivors often describe cognitive deficits as a "loss of self" (Cooper, Kierans, Defres, et. al, 2017). Memory ties directly to personal identity and autonomy: studies note that encephalitis can strip away a person's sense of self, agency and continuity (Cooper, Kierans, Defres, et. al, 2017; D'Cruz, 2021) – from immediate disability, on to keeping functional capacity at expense of continuous stressful overadapted mnemonic costly reinforcements, and given current research confirms people with disabilities point out decision-makers lack an understanding of their disabilities, and half reported have somehow been denied of disability support (Department of Justice Canada, 2022).

This is especially grave: severe neurocognitive mnemonic damage undermines both respect for personal needs, the patient's self-perception, time continuity and hence dignity, and anxious self-determination all by itself. Causing such **harm through negligent non-diagnosis or undertreatment inflicts deep existential injury beyond any physical or economic disability.** In moral terms, when so, otherly focused health institutional systems amplify and make such victims whole – not only via legal damages but also through lifelong need of functional support and upholding restoratives not at full expense of the patient's basic wellbeing.

Justice and institutional responsibility are also paramount. Healthcare systems exist to serve the public good; when systemic failures cause disability, fairness demands full remediation. For example, a UK patient whose encephalitis diagnosis was missed received a **£2.5 million** settlement (with ongoing care payments) after doctors failed to act on a positive HSV test (Sidebottom, M., 2024). This award included funds for lifelong care, lost earnings and therapies (Sidebottom, 2024). Such judgments recognize that allowing avoidable brain injury violates distributive justice: those harmed by institutional error deserve comprehensive compensation. Hospitals and health authorities must repair the breach of trust – covering medical costs, income loss, and the intangible

burdens of cognitive loss – to uphold social cohesion and "serve our collective good" (Medical Protection Society, 2024; Ruger, 2008). In short, principles of fairness obligate healthcare organizations to address the full human impact of delays.

- ✔ **Non maleficence:** Avoidable HSE injury breaches "do no harm" (Medical Protection Society, 2024) – a delay that causes brain damage violates this core duty.
- ✔ **Duties upon care:** Clinicians must ensure urgent treatments are actually given (Healthcare Risk Management, 2012). In the $23M case, physicians (and the hospital) were held liable when a "stat" acyclovir order went unfulfilled.
- ✔ **Patient autonomic identity:** Severe memory loss undermines autonomy and personhood (Cooper, Kierans, Defres, et. al, 2017; D'Cruz, 2021) if left unhelped. Respecting persons demands repairing harms that overwhelming patients' agencies.
- ✔ **Justice and fairness:** System failures obligate full accountability. Courts have awarded multi-million damages to cover lifelong care and lost earnings when delayed HSE treatment caused disability (Sidebottom, 2024). Fairness requires compensation and systemic fixes.
- ✔ **Collective health and good:** Healthcare should serve society's wellbeing; errors that scar a patient violate the social contract. Rebuilding trust (and improving HSE protocols) is a collective imperative.
- ✔ **Professionalism:** Openness after errors is essential (Gordon, 2005). Doctors should disclose and apologize for mistakes, since concealing harm "by any means" is widely seen as intolerable.

Fig. 7. Acute Brain Herpetic Risks: *Consideration and further attention remarks for health service.*

Comparing hippocampal atrophy and insular lesions in reviewed cases (Shalchi et al., 2009; Feola et. al., 2018; Img., Clínica Sta. María, 2024; Neurpsi., Clínica Sta. María, 2024), patterns reflect core impairments in memory, identity, and regulation, highlighting how delayed treatment amplifies cognitive and emotional injury.

Finally, professionalism demands transparency and learning. Concealing mistakes is widely regarded as morally wrong. Medical bodies (AMA) and healthcare accrediting agencies endorse **open disclosure** of errors (Gordon, 2005). Apology, honesty, and remedial action not only honor patients' autonomy and dignity, but also rebuild trust and prevent future harm rooting for an improved system where damaged case patients can help health with improving insight. Studies show that patients primarily sue over communication breakdowns, not just errors themselves (Gordon, 2005). Thus institutions are obliged to acknowledge lapses, apologize, and change processes – not to punish alone, but to prevent recurrence. In HSE delays, this means: acknowledging missed diagnoses; explaining the harm; committing to system-wide reforms so no other

patient loses hours (and brain cells) to bureaucratic inertia, and helping patients who have to deal with sequels. If invisible disability does not mean non-existent, encephalitis survivors patients may need advocacy to access disability benefits, workplace accommodations, or social and often qualify for total disability yet face barriers in recognition; they require help to claim entitled benefits and reparative justice (Perkins, School for the Blind., n.d.; Brain Injury Association of America, n.d.)

Upon herpetic encephalitis, delays in treatment can cause severe brain damage, violating the need to avoid harm. **Ensuring that antivirals are both prescribed and promptly administered is critical:** delays not only result in lasting neurological injury but also eventually compromise a person's autonomy and identity upon risky and systematically-shaded neglect. Building trust and improved care, we need to prevent future harm by prioritizing structural readiness and clinician education while improving transparent accountability.

vii. Conclusions and Vigilant Treatment

This comprehensive review converges on an unequivocal conclusion: **delayed diagnosis and treatment of herpes simplex encephalitis (HSE) inflict preventable - often irreversible - hippocampal injury yielding: from profound memory deficits, on to language impairments and lifelong sequelae.** Cases with antiviral initiation beyond 24 hours uniformly exhibit poorer neurocognitive recovery and higher rates of permanent disability, affirming that "time is brain" applies as rigorously to viral encephalitis (Raschilas et. al, 2002) .

Beyond the medical imperative for empiric acyclovir, our review demands adjustments: clinicians must **maintain a low threshold for suspecting encephalitis, ensure prompt administration of ordered antivirals, and transparently disclose any lapses.** Medico-legal precedents – such as economic verdict arrangements for even three-hour nursing delays – demonstrate that courts will hold providers and institutions fully responsible for harms arising from socioeconomic diagnostic inertia; treatment delayed managing, or any default attention-ommissive pseudo-preventive denials (Rubin, Russell & Gulinello, 2012).

Empirics Based on Outcomes: All guidelines stress empiric acyclovir at first suspicion of encephalitis. For example, one authoritative infectious-disease source explicitly advises: *"Start acyclovir 10 mg/kg q8h in all patients with suspected encephalitis"*. In practice this means we should *"treat first, test later"* whenever HSE is on the differential. (Similarly, Hughes & Jackson in 2012 recommend beginning acyclovir

"expeditiously on the basis of clinical suspicion rather than waiting for confirmatory tests".)

Studies confirm small delays dramatically raise the risk of permanent injury. In a series of 30 HSE patients, initiating acyclovir after three day symptoms increased poor outcomes by order of magnitude (odds ratio ~10.6, Poissy et al., 2009).

As **delayed treatment produces poor clinical outcome,** physicians are urged to start immediate acyclovir upon HSE on clinical suspicion rather than waiting for confirmatory tests (Hughes & Jackson, 2012). In short, every day (and even every hour) counts: late treatment allows the virus to irreversibly damage hippocampal circuits. These findings reinforce that emergency protocols must minimize delay. Clinicians should be trained to recognize HSE early and initiate IV acyclovir **immediately.** As Hughes et al. conclude, physicians "should begin acyclovir therapy expeditiously" on suspicion. By promptly treating any encephalitis case as if it were HSV, hospitals can vastly improve outcomes and avoid the immense human and legal costs of delay.

To safeguard patient personhood and uphold non-maleficence, health systems could implement **standardized HSE checklists, rapid-response protocols, and robust follow-up mechanisms to confirm therapy delivery.** Research on hippocampal function shows that damage causes inflexible behavior deficits across mnemonic decision-making and other pragmatic needs, often escaping quick detection by routine focal tests (Rubin et al., 2014). Furthermore, recognizing the lived, phenomenological impact of memory loss underscores the need for integrated rehabilitation and psychosocial support. Ultimately, dismantling the systemic and semantic barriers that today prolong HSE urgent care is both a clinical and moral imperative – one that demands swift action, ongoing quality improvement and remediation when standards of care falter.-

When delays occur, ethical practice demands transparency, apology, and support for survivors' (Gordon, 2005). In practice, this means patients commonly struggle with anxiety, dysphoria or even post-traumatic stress after discharge: addressing these issues is critical; emotional distress can become "the elephant in the room" if teams focus only on motor-speech recovery (Kvam et al., 2024). HSE caring and attention guidelines reframings (Rubin et al., 2012; Sidebottom, 2024) are learning/developing processes, each underscoring swift, empathetic, and accountable actions medically essential, and socially needed. Survivors frequently encounter institutional disbelief because systems that require visible proof of disability will exclude brain-injured individuals: rigid bureaucratic definitions demand external markers that exclude individuals with less visibility (Engström Katsui & Ned, 2025).

Every hour counts in HSE: start acyclovir immediately upon suspicion (Tunkel et al., 2008). Hospitals should adopt rapid-response protocols upon (e.g., automatic neurology

consults, lumbar puncture checklists), train clinicians to recognize subtle presentations, and deploy decision-support alerts. Bias must be countered so that no patient - regardless of psychosomic concurrence - is overlooked (Carel & Kidd, 2014).

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