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Research article

Clinical Experiences of Physicians and Nurses Recognising Neuroleptic Malignant Syndrome in Psychiatric Hospitals: An Interpretative Phenomenological Study

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Abstract

Neuroleptic malignant syndrome (NMS) and metabolic neurological disorders can both present with altered consciousness, creating a diagnostic challenge in psychiatric emergency and intensive care services. This qualitative study explored how physicians and nurses experienced early recognition and management of patients with deteriorating consciousness in two referral psychiatric hospitals in Central Java, Indonesia. An interpretative phenomenological design involved 14 clinicians: two specialist physicians, six general practitioners and six nurses. Semi-structured interviews, reflective observation and a focus-group discussion were used to examine lived experiences; the thesis describes interpretative phenomenological analysis supported by triangulation, member checking and an audit trail. Its findings were organised into four domains: the experience of managing acute deterioration, early detection and differential diagnosis, interprofessional collaboration and staff development, and clinical reflection. Participants' reported accounts highlighted the challenge of distinguishing NMS from metabolic or other neurological conditions when characteristic features develop over time. Familiar clinical warnings included hyperthermia, muscle rigidity, altered mental status and autonomic dysfunction; early review of causative medication and escalation to supportive management were central clinical concerns. The findings indicate that structured recognition pathways, clear professional responsibilities and reflective team learning warrant consideration, without establishing the effectiveness of any specific clinical protocol. The interpretations are contextual and should not be generalised as estimates of the prevalence of NMS or of treatment effects.

INTRODUCTION

Neuroleptic malignant syndrome is an uncommon but potentially life-threatening complication of exposure to dopamine-blocking medication. It is associated with mental status alteration, hyperthermia, muscle rigidity and autonomic instability, yet individual symptoms may emerge asynchronously. Clinical recognition can be difficult when the patient has co-occurring psychiatric illness, incomplete medication

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history or rapidly evolving acute medical conditions.[1,2,3]

Decreased consciousness in a psychiatric hospital is not specific to neuroleptic malignant syndrome. Infection, seizures, metabolic encephalopathy, drug toxicity, dehydration and other neurological emergencies must be considered, sometimes in parallel. Because laboratory results and specialist assessment may not be immediately available, bedside recognition and communication among nurses and physicians are particularly important. The ability to identify deterioration, communicate uncertainty, and act on a differential diagnosis can influence the trajectory of emergency care.

Clinical guidelines and case-based evidence identify the need for rapid assessment, discontinuation of the suspected offending drug when NMS is suspected, physiological monitoring and supportive treatment. Still, such guidance does not fully describe what it feels like to make decisions amid uncertainty, nor how different professional roles affect response. Qualitative inquiry is suited to identifying practical and experiential dimensions that may be hidden in chart reviews or purely epidemiological analyses.[2,6,7]

The aim of this study was therefore to explore physicians' and nurses' experiences with early identification and management of NMS and metabolic neurological conditions in patients with altered consciousness at two regional psychiatric referral hospitals in Central Java. The intended contribution was descriptive and interpretative: to articulate challenges, teamwork patterns and learning needs perceived by clinicians, rather than to evaluate the effect of a particular treatment protocol.

METHODS

Design and setting

The research used an interpretative phenomenological approach focused on lived clinical experience. The two reported settings were RSJD dr. Amino Gondohutomo and RSJD dr. Arif Zainudin, psychiatric referral hospitals in Central Java, Indonesia. These settings receive patients whose psychiatric histories and medication exposure may coexist with medical causes of acute decline. Qualitative exploration was selected to capture the meanings clinicians assigned to urgent recognition, decision-making and interdisciplinary interactions.

Participants

Fourteen health professionals participated: two specialists, six general practitioners and six nurses. Recruitment sought professional perspectives across roles involved in acute psychiatric care. Participant characteristics were described in the source study, but the available material does not provide a defensible breakdown of all years of service, unit placements or sampling transitions. No quantitative sampling calculations are relevant to this phenomenological design.

Data generation

Semi-structured interviews were the main source of narrative material. Reflective observation was also described, and focus-group discussion was used to explore shared issues and practical responses. Interview and discussion topics included early clinical manifestations, recognising causes of altered consciousness, response to antipsychotic exposure, clinical escalation, availability of investigations and collaboration with other disciplines. Accounts were understood as the participants' experience and interpretation, not a measured audit of compliance with clinical guidance.

Analysis and trustworthiness

The thesis describes Interpretative Phenomenological Analysis (IPA), with themes derived from clinical accounts and interpreted across cases. Triangulation, respondent validation/member checking and an audit trail were described as credibility measures. The presentation below retains the four high-level thematic domains reported in the study. It does not present invented quotations or assume that every theme was endorsed by each clinician. Qualitative reporting principles, including attention to reflexivity, sampling, analytic decisions and illustrative quotations, guided editorial organisation; formal compliance with a reporting checklist was not independently established.[4,5]

RESULTS

The analysis was organised around four themes representing distinct but connected dimensions of the experience of caring for patients with altered consciousness. Table 1 summarises the themes and their immediate interpretative meaning. These themes should be read as qualitative categories rather than frequency-ranked outcomes.

Table 1. Thematic organisation of clinicians' reported experiences.

Thematic domain	Synthesis of reported experience
Clinical management of deterioration	Experiencing uncertainty when responding to reduced consciousness in patients whose medication exposure and other acute medical conditions may overlap
Early detection and diagnosis	Recognising combinations of fever, rigidity, mental-state changes and dysautonomia, while considering metabolic and neurological differential diagnoses
Team collaboration and human-resource development	Coordinating urgent assessment and escalation across nurses, general doctors and specialists; identifying the need for regular case-based training
Clinical reflection and meaning	Learning from severe clinical events and using retrospective reflection to improve preparedness and professional judgement

Managing acute decline

Clinicians described the challenge of assessing severely deteriorating patients whose symptoms could not immediately be assigned to a single cause. In psychiatric services, the question of whether to attribute a change in consciousness to a medication-related syndrome, a systemic medical process or another neurological condition was a central practical issue. The thematic analysis emphasised that early actions often occur under incomplete diagnostic information.

Detection and differential diagnosis

Early recognition focused on the clinical constellation of altered consciousness, hyperthermia, rigidity and autonomic disturbances in the setting of antipsychotic exposure. These were discussed as warning features rather than an inflexible rule requiring every feature to be present. The overlap with metabolic neurological disorders was an important source of uncertainty. The accounts highlighted the need to repeatedly reassess the patient as the syndrome develops and laboratory information becomes available.

Collaboration, preparedness and reflection

The themes on collaboration and professional development connected individual judgement with the collective ability to recognise a deteriorating patient. Participants' experiences pointed toward shared escalation protocols, effective handover and training opportunities. The fourth domain concerned reflection on the

meaning of difficult cases and the potential use of these experiences to strengthen future responses. Focus-group discussion complemented individual accounts by bringing clinical and organisational considerations into a shared forum.

DISCUSSION

The findings illuminate a gap between formal diagnostic knowledge and situated clinical decision-making. Neuroleptic malignant syndrome is defined by a distinctive pattern of signs in the context of dopamine antagonist exposure, but its early presentation is not always complete. Atypical or evolving symptoms can compete with other plausible explanations for altered consciousness. The participants' emphasis on reassessment and differential diagnosis is therefore consistent with the recognised complexity of NMS rather than evidence of deficient expertise.[1,2,7]

The second important implication is organisational. Detecting an uncommon emergency requires the bedside nurse to notice deterioration, the treating physician to establish an evolving differential and the wider team to coordinate monitoring and supportive actions. Communication across these roles can be especially consequential in psychiatric services where an acute medical syndrome may be obscured by the patient's psychiatric diagnosis. The qualitative themes suggest that escalation pathways and simulation-based discussion could offer useful targets for service improvement, although this study did not experimentally evaluate those approaches.

The overlap with metabolic and neurological causes of reduced consciousness underscores the importance of avoiding premature diagnostic closure. Antipsychotic history, vital-sign trends, rigidity, mental status, laboratory evidence and competing explanations all warrant integration. NMS management commonly includes withdrawing the implicated medication and providing supportive care, while decisions about specific additional treatments depend on the clinical picture and specialist judgement. These clinical practices are contextual information from the medical literature; the interview data do not demonstrate which treatment was effective in individual cases.[1,3,6]

The phenomenological design contributes a different form of evidence from a diagnostic validation study. The strength is in describing how professional uncertainty and role boundaries are experienced. Its findings are not intended to estimate incidence, sensitivity of diagnostic signs, time to treatment or mortality. The reported use of multiple professional groups, reflective observation and focus-group discussion helped consider both individual and team processes. Nevertheless, interpretation depends on the interviewing context, the researcher's analytic position and whether sufficient participant quotations are provided to let readers assess the connection between data and themes.[4,5]

Implications and limitations

A practical response to the findings would be to map an interprofessional deterioration pathway in each psychiatric ward: identification of abnormal signs, prompt review of antipsychotic exposure, evaluation of competing medical causes, criteria for urgent transfer, and responsibilities for follow-up and documentation. Any pathway should be evaluated prospectively rather than presumed beneficial because clinicians described an unmet need. This study involved 14 professionals from two hospitals; thematic transferability to other institutions is limited by local staffing, resources and case mix. The available extract of the thesis did not permit verification of verbatim illustrative quotations, so the present manuscript deliberately avoids using unverified quotations.

CONCLUSION

In two psychiatric referral hospitals in Central Java, physicians' and nurses' experiences of suspected neuroleptic malignant syndrome and metabolic neurological emergencies centred on diagnostic uncertainty, early recognition, interprofessional coordination and reflective learning. The findings offer a rationale for clearer clinical escalation processes and interdisciplinary education. They do not establish the effectiveness of a specific diagnostic algorithm or treatment. Further qualitative reporting should include traceable participant quotations, and any proposed practice changes require prospective clinical evaluation.

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