

The population for study is a consecutive series of assessments in court proceedings of carers of children at risk and violent offenders.

**Method.** Assistants not involved in the initial assessments transferred data from case notes and this material was transferred to computer files. Statistical analysis SPSS19

Formal psychiatric diagnoses were those agreed in court proceedings. National mortality records were searched and copies of death certificates obtained. A small number of cases known to have returned overseas were excluded. 772 cases were studied. One in five were assessed in prison, twice as many gave a history of violent criminal behaviour. Over a half suffered abuse or neglect or admitted to being unhappy in childhood. Three subgroups have been identified: Vulnerable with no psychotic illness(60%), psychosis with no evidence of personality disorder or of mixed psychosis(18%), linked psychosis(22%). It was found that demographic variables, deprivation factors, adverse childhood experiences and outcomes and clinical variables are in excess among linked psychotics compared with other groups. Linear regression of unnatural death among psychotic patients identifies five risk factors. The distribution of high-risk factors among linked psychosis is more than twice that found in other groups.

**Result.** Natural mortality is most evident among clients suffering from psychosis without personality disorder or mixed disorder. Unnatural mortality is more than 10 times greater among patients with linked psychosis, compared with those with no psychosis and four times greater than other psychoses. Risk factors for unnatural mortality are: physical illness, stressful relationship, violence to self or others, detained and history of behaviour disorder.

**Conclusion.** The findings of the present study demonstrate that vulnerable clients without psychosis are less likely to die by unnatural causes than clients who suffer psychosis coexisting with personality disorder or mixed psychosis. The null hypothesis is upheld. The findings suggest that risk assessment of vulnerable populations should take account of risk factors of unnatural death which have been identified in this study.

### An audit of vitamin D monitoring and management of deficiency in women's secure services

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**Aims.** To audit the investigation, identification and treatment of vitamin D deficiency within Women's Secure Services.

**Background.** It has been suggested that vitamin D and vitamin D deficiency may play a role in the pathogenesis of psychiatric illness. There is evidence that vitamin D inadequacy is prevalent among patients in long-term hospital settings. Patients within secure hospitals are considered to be at high risk due to their often lengthy admissions, having been transferred from other hospital or prison settings. Ardenleigh in Birmingham is a blended female secure unit. Here we present the findings of an audit, completed in 2019, of vitamin D monitoring and treatment in this service.

**Method.** A retrospective review of electronic patient records, for all inpatients admitted within women's secure services at Ardenleigh as of 1st September 2019 (n = 27). Standards were based on the Trust accepted guidelines for management of vitamin D deficiency.

**Result.** Key findings included:-

The majority of inpatients were Caucasian (44%) and African-Caribbean (41%). Median age was 31 years (range 20–56).

Approximately two-thirds (60%) had been in hospital for over a year.

89% of patients had their vitamin D level checked at some point during admission.

Of those checked, 25% were tested within 1 week of admission. Seven patients were tested after being in hospital for over one year (30%).

Only 25% of patients tested were found to have adequate vitamin D levels. Nine patients were found to have insufficient levels of vitamin D (37.5%) or deficiency (37.5%).

89% of those identified as requiring treatment were prescribed supplementation, of which the majority was prescribed at the correct dose for the appropriate duration (94%). One patient refused treatment. Of those with sufficient levels, 67% were prescribed ongoing maintenance treatment due to previously detected deficiency.

Of those found to have sufficient vitamin D in the last 12 months (n = 14), 71% were continued on maintenance treatment.

**Conclusion.** We identified a high prevalence of vitamin D insufficiency in women admitted to secure services. Testing was delayed for a number of patients from the point of admission. However, once identified, the vast majority of those in need of treatment were managed appropriately by the medical team. We advise that vitamin D be considered an essential routine blood test at the point of admission to minimise delays in identifying those with deficiency and establishing necessary supplementation.

### A new handover protocol between old age admission and rehab wards

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**Aims.** Efficient handovers are integral to patient care. Challenges to handover for wards include high patient turnover and varied handover approaches between wards, as well as admissions out of hours. Patients on Old Age Wards often have multiple comorbidities and can deteriorate rapidly without coordinated care. Our focus was on improving handover of patients transferred between the Old Age Admissions Ward and Rehabilitation Ward. We aimed to create a ward handover protocol to improve compliance with documenting a pretransfer plan and ensure there was an 80% compliance with completing this plan within 3 months.

**Method.** An MDT discussion took place in order to explore change ideas. Questionnaires were filled out post implementation of protocol. A handover proforma was designed to capture important patient data and continuing plans. A PDSA cycle was designed to deliver a structured handover.

Per patient measures were collected including: whether a handover took place, recording of current medical and psychiatric issues, documentation of plan and was the plan put into action or reviewed.

MDT feedback was collected on satisfaction with the protocol and handover process using open questions and Likert scale.

**Result.** Prior to the establishment of the proforma there was no verbal or written handover between wards. In 28% of cases prior to the intervention, blood results were checked and