A Prospective Clinical Evaluation of Treatment Effectiveness and Patient Satisfaction Following Usual Care Intervention at a Multidisciplinary Pain Centre

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Purpose of the study: There is strong evidence obtained from controlled trials that supports the use of biopsychosocial multidisciplinary interventions for chronic pain. Yet, studies of the clinical effectiveness and routine application of these approaches in real world settings are rare. This clinical evaluation sought to prospectively track changes in physical (e.g., pain severity, pain-related disability) and psychological (e.g., pain anxiety, pain self-efficacy) outcomes following usual care intervention at a large pain medicine centre (PMC). The degree to which improvements in physical and psychological outcomes were related to patient satisfaction was also examined.

Methods: One hundred and nine (M age = 56.32 years, 51.4% female, pain chronicity Mdn = 5 years) of 141 invited patients who attended the PMC for the first time over a 4-month period completed a pretreatment questionnaire comprised of standardised measures of pain, psychological function, and social background. Forty-three and 46 patients completed the 3- and 6-month follow-up assessments respectively, which also included measures of patient satisfaction.

Results: Within the initial 3 months of treatment there were no significant declines in reported pain intensity, yet patients reported significant improvements in pain relief (p < 0.05). Patients who completed the 3-month follow-up questionnaire reported significantly reduced levels of disability (p < 0.05), less frequent episodes of fearful appraisal and pain avoidance (p < 0.05), and a reduction in catastrophizing pain coping responses (p < 0.02). At 6 months, patients did not report any further improvements in physical and psychological function beyond what they had achieved within the first 3 months. Preliminary findings suggest that patient satisfaction with treatment is significantly related to perceived reductions in disability (p < 0.05) and improvements in self-efficacy for coping with pain (p < 0.01), yet not significantly related to changes in pain coping style.

Conclusions: These findings highlight the importance of measuring treatment outcomes prospectively across different time points in view of the initial improvement in outcome and subsequent plateau observed here. Furthermore, these preliminary results suggest the centrality of patient beliefs pertaining to disability and confidence in their ability to cope when examining the effectiveness of pain interventions.

Beyond Biopsychosocial: A New Framework for Pain Medicine

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Purpose of the study: To identify problems in the biopsychosocial model when applied to people in pain and to explore a resolution.

Methods: Critical analysis of the literature concerning the theory and application of biopsychosocial models to the practice of pain medicine

Results: The biopsychosocial model for understanding illness has generated the IASP definition of pain, two simpler conceptual frameworks, and three explanatory schemata for pain. However, in the absence of a theory of living systems that seeks to understand how the different domains of these schemata interact with each other, these attempts have been caught in circular argument and have been unable to transcend either biomedical reductionism or the perpetuation of body-mind dualism. In particular, the implication that pain is a “thing” separate and distinct from the body not only bears little relationship to the lived experience of pain but also emphasises the inherent problem that arises when an observer attempts to reduce the experience of the pain of “the other” to predictable parameters.

Conclusions: The self-referentiality of living systems (through their qualities of autopoiesis, non-centrality and negentropy) sees pain “emerge” in unpredictable ways that defy any reduction of the lived experience to any particular “thing.” Pain therefore constitutes an aporia,
a space and presence that deny us access to its secrets. We suggest a project in which pain may be approached in the clinical encounter through the engagement of two autonomous self-referential beings from which new therapeutic possibilities can arise. We see three challenges to be met in this project: to accept that the pain of another person is irreducible to its neuronal correlates; to acknowledge all the principles which characterise autonomous biological systems; and to allow a rapprochement between the world of the clinician and the world of the person in pain.

**P29**

**Transfer of Tramadol and its Metabolite into Breastmilk**

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**Purpose of the study:** To investigate the transfer of rac-tramadol and its rac-O-desmethyl metabolite into transitional milk, to estimate the absolute and relative infant doses via milk, and to assess unwanted effects in the breastfed infant.

**Methods:** Tramadol HCl (100 mg six hourly) was administered to 75 breastfeeding mothers for postoperative analgesia on days 2–4 after caesarian section. Three samples of transitional milk and one of plasma were collected over 6–14 h following the 4th dose. Tramadol and O-desmethyltramadol were measured by high performance liquid chromatography. Milk/plasma ratio (M/P) was calculated, and absolute infant dose and relative infant dose were calculated by standard methods. The behavioral characteristics of the exposed breastfed infants and a matched control group of infants not exposed to tramadol were also studied.

**Results:** Mean (95% CI) M/P was 2.2 (2.0–2.4) for tramadol and 2.8 (2.5–3.1) for O-desmethyltramadol. Average concentrations in milk across a 6 h dose interval at steady-state were 748 (681–815) mcg l⁻¹ for tramadol and 203 (188–217) mcg l⁻¹ for O-desmethyltramadol. Estimated absolute and relative infant doses were 112 (102–122) mcg kg⁻¹ day⁻¹ and 30 (28–32) mcg kg⁻¹ day⁻¹, and 2.24 (2.04–2.44)% and 0.64 (0.59–0.69)% for tramadol and O-desmethyltramadol respectively. The exposed infants and control breastfed infants had similar characteristics, including Apgar scores at birth and Neurologic and Adaptive Capacity Scores (NACS) on days 3–4 after birth.

**Conclusions:** The absolute infant doses for tramadol and its active metabolite combined were around 14% of the child therapeutic dose for tramadol. The combined relative infant dose of 2.88% of the weight-adjusted maternal dose was also low. The similarity of NACS in exposed infants and controls suggests that there were no clinically significant effects on infant well-being. We conclude that short-term maternal use of tramadol during establishment of lactation is safe for the breastfed infant.

**P30**

**A National Survey of Analgesic Prescribing Practices in the Acute Postoperative Pain Patient**

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The National Prescribing Service (NPS) in collaboration with State DUE Groups is undertaking a quality improvement initiative aimed at improving Acute Post-Operative Pain management (the APOP project) in 63 Australian hospitals. Following discussions between NPS and ANZCA, it was decided to undertake a national survey of key acute pain service (APS) contacts to aid development of educational messages for the APOP project. The ANZCA Trials Group research co-ordinator and NPS supported survey development and processing.

**Purpose of the study:** To gain an understanding of what expert acute pain service clinicians see as common prescribing errors and poor pain management practice in