| Study<br>details                                    | Patients   | Interventions   | Outcome measures   | Effect size   | Comments  |
|---|--|---|--|---|---|
| Author & Year:<br>Howard et al, 2005 <sup>385</sup> | Patient group: Patients with chronic daily headache  Inclusion criteria:  Consecutive English-speaking patients who fulfilled the criteria for chronic daily headache (CDH); at least 15 days per month of headache for >6 months, including tension-type headache, migraine and secondary headache due to | Asked to take part in interviews and follow up questionnaires with data from primary care case            | Resource use - GP<br>Number of patients using<br>services during year<br>following randomisation   | Group1: 67/68 (99%)<br>Group 2: 66/69 (96%)<br>Relative risk: 0.99 *<br>95% CI: 0.88-1.11 *<br>p value: 0.619 (0.84*) | Funding: The Wellcome<br>Trust  Limitations: Randomisation unclear.   |
| Study<br>design:<br>RCT<br>Setting:<br>Headache     |  |   | Resource use - neurologist  Number of patients using services during year following randomisation  | Group1: 1/68 (1.5%) Group 2: 17/69 (25%) Relative risk: 0.06 * 95% CI: 0.01-0.42 * p value: <0.001 (0.005*)           | Patients swapped groups. Allocation concealment unclear. Single-blind (assessor only). Response rate was lower            |
| clinic in<br>secondary<br>care,<br>London           | excessive medication consumption, presenting as new patients to the headache clinic at King's College Hospital in London.  Exclusion criteria:   |   | Resource use -<br>psychiatrist/therapist<br>Number of patients using<br>services during year<br>following randomisation  | Group1: 1/68 (1.5%)<br>Group 2: 8/69 (12%)<br>Relative risk:0.12 *<br>95% CI:0.02-0.95 *<br>p value: 0.033 (0.04*)    | than expected which<br>meant there was a lack of<br>statistical power for<br>some of the outcome<br>measures.             |
| Duration<br>of follow-<br>up:<br>1 year             | Clinical justification for neuroimaging (with the exception of solely providing reassurance).  Medical contraindication to an MRI structured interviscan.  Given a letter pro information on CI Completed a sem structured interviscan.  | Given a letter providing information on CDH.  Completed a semi-structured interview for their medical and | Resource use – outpatien Number of patients using services during year following randomisation  Resource use – outpatien Number of patients using services during year following randomisation | Group1: 30/68 (44%)<br>Group 2: 32/69 (46%)<br>Relative risk:0.91*<br>95% CI: 0.62-1.34 *<br>p value: 0.864 (0.64*)   | 1/3 of HADS positive patients not offered a scan had scans elsewhere in the following year. Incomplete reporting of data. |
|   | All patients N: 150 Age (mean): 38.1 (S.D. 12.4) years Drop outs: 8, but unclear   | completed the following scales: HADS (hospital anxiety and depression scale)                              | Resource use – other imaging  Number of patients using services during year following randomisation  | Group1: 13/68 (19%)<br>Group 2: 21/69 (30%)<br>Relative risk:0.60*<br>95% CI:0.33-1.11*<br>p value: 0.166 (0.11*)     | Additional outcomes: Likert five point scales for anxiety about serious underlying illness. Revised illness               |
|   | HADS positive: 66/150 (44%)  Group 1 (offered scan)  | Visual analogue scales (VAS)  | Resource use – tests Number of patients using services during year   | Group1: 21/68 (31%)<br>Group 2: 29/69 (42%)<br>Relative risk:0.71*  | perception questionnaire (IPQ-R). Medical outcome study   |

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| ictalis          | N: 76 Age (mean):37 (11.4%)  | illness belief (0-100) Likert five point scales of  | following randomisation   | 95% CI:0.44-1.12*<br>p value: 0.215 (0.14*)  | short form 36 (SF-36),<br>data not reported.  |
|                  | Drop outs: not clear, 5 did not have scan  Group 2 (not offered scan)  N: 74 | anxiety about serious underlying illness. Health anxiety questionnaire (HAQ) of 21 questions with 4 subscales. Service use over a | Resource use – inpatient care  Number of patients using services during year following randomisation                | Group1: 5/68 (7%) Group 2: 10/69 (14%) Relative risk: 0.49* 95% CI:0.17-1.36* p value: 0.274 (0.17*)         | Notes: CDH defined as: at least 15 days per month of headache for more than 6 months (which can           |
|                  | Age (mean): 40 (13.2)  Drop outs: unclear, 3 demanded a scan.                | retrospective 1 year period   | Resource use – other<br>services<br>Number of patients using<br>services during year<br>following randomisation     | Group1: 6/68 (9%)<br>Group 2: 6/69 (9%)<br>Relative risk: 0.97*<br>95% CI:0.33-2.88*<br>p value: 1 (0.96*)   | include tension type headache, migraine, and secondary headache due to extensive medication consumption). |
|                  |  |   | Resource use – sick notes<br>Number of patients using<br>services during year<br>following randomisation            | Group1: 6/68 (9%)<br>Group 2: 7/69 (10%)<br>Relative risk: 0.83*<br>95% CI: 0.29-2.37*<br>p value: 1 (0.73*) | Headache index= no. of hours with headache x intensity / no. of days recorded.                            |
|                  |  |   | Change in anxiety and depression  VAS worry (at 1 year, scanno scan) (n Gp1: 54, Gp2: 42)                           | Adjusted difference:<br>-4.47<br>95% CI:-15.27 to 6.33<br>SE: 5.51 †   | * Based on ITT analysis paper – other data reported here is availab case analysis.                        |
|                  |  |   | Change in anxiety and depression HAQ health, worry and preoccupation (at 1 year, scan-no scan) (n Gp1: 48, Gp2: 34) | <b>Adjusted difference:</b> 0.22 <b>95% CI:-</b> 1.26 to 1.70 <b>SE:</b> 0.76 †                              | †calculated by NCGC   |
|                  |  |   | Change in anxiety and depression  | <b>Adjusted difference:</b> 0.31 <b>95% CI:</b> -0.84 to 1.45  |   |

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|------------------|----------|---------------|--|---|----------|
|                  |          |               | HAQ fear of illness<br>(at 1 year, scan-no scan)<br>(n Gp1: 50, Gp2: 33)   | <b>SE</b> : 0.58 †  |          |
|                  |          |               | Change in anxiety and depression  HAQ reassurance seeking behaviour (at 1 year, scan-no scan) (n Gp1: 50, Gp2: 35) | Adjusted difference:<br>-0.39<br>95% CI:-0.93 to 0.16<br>SE: 0.28 †   |          |
|                  |          |               | Change in anxiety and depression  HAQ life interference (at 1 year, scan-no scan) (n Gp1: 51, Gp2: 33)             | Adjusted difference:<br>-0.20<br>95% CI: -1.12 to 0.72<br>SE: 0.47 †  |          |
|                  |          |               | Incidental neurological findings (%)   | 97% normal 2 abnormal (a posterior fossa arachnoid cyst and a hypothalamic signal flair, neither clinically significant). |          |

Abbreviations: NR=not reported, NA=not applicable, M/F=male/female, N=total number of patients randomised, SD=Standard deviation, SE=Standard error, ITT=Intention to treat analysis, CDH=chronic daily headache, HADS=hospital anxiety and depression scale, VAS=Visual analogue scale