



National Rheumatoid Arthritis Society

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Mr. Jeremy Powell
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National Institute for Health and Clinical Excellence
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71 High Holborn
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9th August, 2009

Dear Jeremy,

NRAS Response to MTA appraisal of Adalimumab, etanercept, infliximab, rituximab and abatacept for the treatment of rheumatoid arthritis after the failure of a TNF inhibitor

We are pleased to have the opportunity to respond to the above appraisal and I would first of all like to confirm that NRAS supports and endorses the joint submission by ARMA/BSR as well as that submitted by the RCN and I do not propose to repeat all the points made in those submissions here other than to reinforce any particular points made from the patient perspective in regard to the best overall strategy for treatment of people with RA.

It is important to place on record that NICE have given us very little time to prepare this submission bearing in mind that the scoping meeting was on the 9th July and the revised protocol for this MTA was only sent out on 31st July with a deadline of 10th August. This is a holiday period and both the clinical experts who have been supporting NRAS throughout the work on switching are away on annual leave. As this Appraisal is not scheduled until February 2010 we feel that NICE have not appreciated the difficulty that patient organisations face with such short timescales, particularly at this time of year.



It seems logical to address the questions raised in NICE protocol dated 17th July.

4.1 Decisions to be made

Problem 1

Whether there are significant differences in clinical and cost effectiveness between Adalimumab, Etanercept, Infliximab, Rituximab and abatacept.

This is a difficult question for a patient organisation to address, however we have noted one paper which is relevant citing sequenced Anti-TNF therapy initiated with Adalimumab + MTX as being most cost effective.¹

In regard to Rituximab we would observe that if given at 6 monthly intervals, the cost, bearing in mind the cost of providing hospital resources and facilities to administer all the infusions at baseline, 6 months and then at 12 months, would be higher than providing sub-cutaneous Anti-TNF therapy over a 12-13 month period. Has this scenario been modelled?

We would reinforce the point made in the BSR submission that there are now 3 large cohorts of patients who have shown maximum benefit from abatacept after the first 12 months of treatment and health economic analysis of abatacept should take into account the increase in efficacy which takes place after the first year of treatment.

Problem 2

Whether the interventions are clinically effective and cost effective compared to conventional DMARDs.

It is clear from many studies that returning people to failed and/or palliative DMARDs, is of no benefit, and in regard to use of steroids, is in fact detrimental. In fact patients who have experienced using steroids at some time will tell you that the drug that is most likely to relieve symptoms of pain and stiffness when taken in sufficient dosage is steroid, but most patients are aware that there are major side effects precluding the long term use of steroids, and in fact in February 2009 NICE published the guidelines for Rheumatoid Arthritis in adults.



Questions the Guideline Development Group asked were:

- _ Should recent-onset RA patients be treated with some form of steroids (oral or intramuscular)?
- _ Do the benefits of steroids out-weigh the disadvantages?
- _ Do steroids have a lasting impact on symptoms, function of joints and quality of life?
- _ Should steroids be classified as disease modifying drugs?

From evidence to recommendations

Recent-onset RA

The GDG noted that there was a considerable mismatch between the available data and what actually happens in clinical practice. For example, both in the initial presentation of disease and during flare-ups, steroids (oral, intra-muscular and intra-articular) are often used to obtain symptomatic benefit and to achieve disease control whilst waiting for the more slowly-acting DMARDS to take effect, despite the lack of evidence to support this. The clinical efficacy of this approach is so well established that it is doubtful that any future randomised controlled clinical trials would ever be conducted, and the GDG felt that there should therefore be a recommendation endorsing this use of steroids, both for those patients with newly diagnosed rheumatoid arthritis who are not already receiving steroids as part of DMARD combination therapy (see recommendation R22), and for the management of flare-ups in those with recent onset or established disease.

Established RA

The GDG noted that the evidence for the use of steroids in established disease was sparse, of limited quality, and that in two trials the much older drugs penicillamine and gold had been used as comparators. There was a need to establish the merits of combining steroids with drugs such as methotrexate in established disease, where there was much less evidence for disease modification by steroids than in recent-onset disease.

Although a consistent theme for both recent-onset and established disease is that the symptomatic benefit produced by steroids is usually only short lasting, the GDG noted that, in routine clinical practice, there are nevertheless some patients who appear to be reliant on long term low dose steroids since withdrawing them results in flare-up of disease activity. This use of steroids in this particular group of patients may have to be accepted, even though the situation is not ideal, although attempts should always be made to replace the steroids with other disease modifying drugs and to keep the



steroids to the lowest dose that controls symptoms. It was also felt important to emphasise the specific potential serious complications associated with long-term steroid therapy.

RECOMMENDATIONS

R22 Consider offering short-term treatment with glucocorticoids (oral, intramuscular or intra-articular) to rapidly improve symptoms in people with newly diagnosed RA if they are not already receiving glucocorticoids as part of DMARD combination therapy.

R23 Offer short-term treatment with glucocorticoids for managing flares in people with recent onset or established disease, to rapidly decrease inflammation.

R24 In people with established RA, only continue long-term treatment with glucocorticoids when:

- _ the long-term complications of glucocorticoid therapy have been fully discussed, and
- _ all other treatment options (including biological drugs) have been offered.

In regard to clinical effectiveness of switching to a second TNF, data from the BSR Biologics Register (Hyrich et al. Outcomes after switching from one Anti-TNF to a second ... 2007) states “in conclusion, these data from a large unselected population of RA patients suggest that, based on treatment continuation rates, there is a strong case for switching patients to a second Anti-TNF agent when failure to respond to the first agent occurs. In fact, our findings showed that more than 70% of patients continued on a second agent for at least 6 months. This was the case for patients stopping either because of inefficacy or because of certain AEs. ... Further studies will be needed to determine whether there is a role for yet a third Anti TNF agent in these patients or whether it is better to move onto a different class of biologic agent”.²

Problem 3

Whether the interventions are clinically effective and cost-effective compared to other biologic agents (including tocilizumab, golimumab and certolizumab).

My understanding from data from the Biologics Register is that the three TNFs in current use are similarly clinically effective. The other three drugs are not yet in use in the NHS and I don't believe there are any head to head studies comparing TNF against other biologic agents.



We have said in previous submissions to NICE that whilst there have been recent advances in understanding the genetic and molecular basis of rheumatoid arthritis, its individual pattern of expression and reasons for responding to one treatment over another require ongoing and future development of better diagnostic and prognostic biomarkers which we hope will lead ultimately to being able to identify an optimum treatment regimen without having to cycle through often expensive therapies. We have not reached this point but it is clear that there are patients who are more likely to respond to an IL6, or a particular TNF or a B-cell modifier, we just don't have the ability yet to match patient to optimum drug. It is equally clear that patients will need access to all these different biologic therapies and unless we are able to use them to gain the clinical experience we need to further this research agenda, we are not going to reach a point where biologics can be used and sequenced much more effectively and economically.

Problem 4

Whether the interventions are clinically effective and cost effective compared to supportive care.

We have partially addressed this issue under Problem 2 above, however, added to what we have said above in regard to use of failed DMARD therapy and long term use of steroids, must be the arguments over increased use of healthcare resources by this group of patients. Patients who are inadequately controlled and receiving 'supportive' care will:

- Visit their GP much more frequently
- May be hospitalised from time to time due to inability to cope with severity of disease, symptoms and disability
- Will become increasingly disabled as their bones erode
- Will require more frequent surgery
- Will risk job loss and will lose their job more than controlled patients
- Will be more likely to claim benefits
- Will be a greater burden to social care costs
- Will have greater impact on their family who are more likely to also suffer job loss to become 'carers'
- Incur worse health economic outcomes
- Be less able to self manage adequately
- Have a significantly worse quality of life
- Have higher morbidity and mortality



We think that there is general lack of awareness that about 50% of people with RA die of cardiovascular disease and that there is significantly increased morbidity and mortality due to upper-gastrointestinal disease as a result of treatment for RA.³

There is also a lack of awareness that associated co-morbidities in these patients reinforce each other, impacting on disability, and that the number of co-morbidities in each patient is in itself an independent risk factor for premature death.⁴

There is a suggestion by NICE that there should be a clear distinction made between putting patients back on DMARDS (having failed one TNF and/or one TNF and RTX) on which they have already failed and those DMARDS which patients have either not tried at all or have an inadequate response. Data suggests that patients who fail on Methotrexate are unlikely to respond to other DMARDS.⁵ From a patient perspective, either situation would be considered a retro-grade step and a course of action which would cause substantial alarm by comparison to being allowed to try a second TNF or indeed other biologic such as abatacept, or in due course, tocilizumab, certolizumab or golimumab.

There is evidence to show that x-ray progression is greater in patients who are on DMARDS than on those on Anti-TNF. X-ray progression leads to joint deformity, disability and ultimately surgery.

Problem 5

Whether the clinical and cost-effectiveness of the interventions differ significantly between certain sub-groups of patients.

We would like to support the submission of the BSR in regard to our concerns over use of Rituximab in sero-negative patients, methotrexate intolerant patients and patients with co-morbidities such as heart failure for whom some treatments may be contra-indicated.



Additional areas of interest and concern to NRAS

Costs associated with joint replacement and hospital admissions

This is an area where we believe costs are inadequately represented in the economic model and we very much reinforce the suggestions for further research put forward in the RCN submission on this subject.

HAQ – QoL

An on-going source of debate which is of great importance to us is the relationship between HAQ score and Quality of Life.

Patients with rheumatoid arthritis face considerable physical, social and emotional disabilities. In this chronic disease, improving patients' health-related quality of life is of the utmost concern to us, particularly as the use of long-term biologic therapy increases. Early HRQoL outcome measures in RA focused on physical functioning, but the social and emotional aspects of the disease are now increasingly important. **No one tool covers all areas of HRQoL that affect the patient with RA.**

We all understand that the reason the HAQ improvement is lower in the BSRBR observational cohort than other studies of Anti-TNF is due to the long disease duration of these patients who had failed on at least 4 DMARDS before going onto their first, never mind their second Anti-TNF. The difficulty is therefore in measuring the clinical benefits for economic modelling in a way which adequately reflects quality of life in a meaningful way to all patients with RA.

There are two recent papers which are of interest here. The first, published on 21st June, 2009 is entitled 'Perceived functional disabilities among rheumatoid arthritis patients'⁶ and points out (which is extremely relevant from a patient perspective), that in HAQ, to determine the functional disability, the functions themselves have been chosen by rheumatologists, and the selection of the functions solicited from patients is based on the views and opinions of the clinicians. Therefore all such measures reflect functional disabilities in those functions which the clinicians **assume** to be relevant for the patients. In this study there were a total of 354 mentions of functional difficulty (telephone interviews carried out with 143 patients with RA) and problems in physical tasks were reported by almost 9 out of 10 patients. The most commonly



mentioned disabilities were walking and opening jars, however, **the most commonly mentioned disabilities were not those with the highest perceived disabilities by patients.**

In the second paper, published on 11th July 2009, 'Measure of function in rheumatoid arthritis: individualised or classical scales?'⁷, data were obtained from a 6 month, prospective, open-label study involving 378 RA outpatients treated with Leflunomide. In this study patients had to rate the importance to them of each HAQ question and then had to prioritise the 5 activities they considered the most important in their lives. **For each item, severity and importance scores were weakly or not significantly correlated** and concluded that even if individualisation is probably not needed for group assessment in all RCTs, the use of individualised questionnaires could be clinically relevant in decision making for individual patients.

Recent Important Publications of relevance to this appraisal:

Kings Fund Report⁸

National Audit Report⁹

Fit for Work – The Work Foundation¹⁰

NICE RA Guidelines¹¹

Sir Ian Kennedy Report into Innovation¹²

Health Select Committee Report into NICE¹³

NICE submission to the Kennedy Report¹⁴

Summary of key points from the NAO Report of relevance

The NAO estimate that rheumatoid arthritis costs the NHS around £560 million a year in healthcare costs, with the majority of this in the acute sector, and that the additional cost to the economy of sick leave and work-related disability is £1.8 billion a year. In the NICE submission to Sir Ian Kennedy's report¹⁴ into innovation, the following key paragraph from NICE's own processes, states:



2.22 The 2008 NICE Guide to the methods of technology appraisal states that “Technologies for which a substantial proportion of the costs (or cost savings) are expected to be incurred outside of the NHS and PSS, or which are associated with significant non-resource effects other than health, should be identified during the scoping stage of an appraisal. In these exceptional circumstances, information on costs to other government bodies, when these are not reflected in HRQL measures, may be reported separately from the reference-case analysis. The intention to include such data will normally be agreed with the Department of Health before finalisation of the remit.” This was undertaken for the appraisal for conduct disorder in children (TA102). In public health the perspective taken is “in connection with ... the effective use of resources in the health service and other available public funds”.

At no time that I am aware of during the scoping meeting which took place was this mentioned by any of the NICE personnel present and at that time the NICE response to Sir Ian’s report had not been published.

That NICE take into account some of the wider societal costs associated with RA in the economic modeling is a hugely significant issue to all the stakeholders of this appraisal and one which we have raised on every possible occasion. We would like to register a request under your own processes, that we have exceptional circumstances as identified by the NAO report which demand referral to the DH in respect of this appraisal.

The following paragraphs all serve to reinforce our above request.

The report also identified that currently only 10 per cent of people with the disease are treated within three months of symptom onset. The NAO economic modelling suggests increasing this to 20 per cent could initially increase costs to the NHS by £11 million over 5 years due to higher expenditure on drugs and associated costs of monitoring people with the disease (after around nine years, earlier treatment could become cost neutral to the NHS). This increase in treatment could, however, result in productivity gains of £31 million for the economy due to reduced sick leave and unemployment. On average, this could also increase quality of life by four per cent over the first five years, as measured by quality adjusted life years (QALY) gained. This information must be taken into account by the Appraisal Committee.

The Department’s approach to rheumatoid arthritis

The NHS Improvement Plan also set out the Department’s plans to improve care for people with long-term conditions by moving away from reactive care based in acute hospitals, towards a systematic patient-centred approach rooted in primary care. The Department’s plans were further developed in its January 2005 policy document, ‘Supporting people with long-term



conditions', which promoted earlier detection; more effective medicines management; and improving quality of life by empowering people to manage their own condition.

The NAO have estimated that around 26,000 new cases of rheumatoid arthritis are diagnosed each year. Around three quarters of people are working age when diagnosed. The DWP estimates that in 2007-08, expenditure on incapacity benefits for people with rheumatoid arthritis was £122 million. Estimates of the total cost of rheumatoid arthritis to the economy, including NHS costs as well as carer costs, the costs of nursing homes, private expenditure, sick leave and work-related disability are as high as £3.8 to £4.8 billion a year.

Surgery for people with rheumatoid arthritis

Earlier and more aggressive treatment has been shown to reduce surgery rates.¹⁵

Understanding of rheumatoid arthritis by employers and support provided on employment

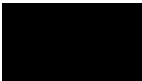
According to the report, an employed person with rheumatoid arthritis has on average 40 days sick leave per year, and reduced productivity at work. Comparisons of productivity loss for people with rheumatoid arthritis in employment indicate that, on average, those who respond to treatment have up to 24 fewer sick days per year than those who do not.¹⁶

Given the timescale of next February, we would request that other data which is not yet in the public domain but intended to be presented at this year's ACR in late autumn 2009 be able to be taken into account.

Given the complexity of the issues which NICE must take into account in this Appraisal, NRAS believe it would be appropriate and very helpful if greater collaboration between industry, all stakeholders and NICE were possible such that an element of risk-sharing between industry and the NHS could be considered whereby patients who fail a first TNF are able to trial a second providing that very strict cessation criteria is established, minimising prolonged use of therapy where there is an inadequate response.



Yours sincerely,



References

- 1 Cost Effectiveness of Sequential Therapy with Tumor Necrosis Factor Antagonists in early RA. *Andrew Davies et al. J Rheumatology January 2009 36(1): 16-26; doi.10.3899/jrheum.080257*
- 2 Outcomes After Switching from one Anti-Tumor Necrosis Factor Agent to a Second Anti-Tumor Necrosis Factor Agent in Patients with Rheumatoid Arthritis. Results from a Large UK National Cohort Study. *Hyrich et al. Arthritis & Rheumatism Vol. 56, No. 1, January, 2007*
- 3 Accelerated atherosclerosis: an extraarticular feature of Rheumatoid Arthritis. *Van Doornum et al. I.P. (2002) Arthritis & Rheumatism 46(4), 862-873*
- 4 Co-morbidity in Rheumatoid Arthritis. *Mikuls et al. Rheumatic Diseases Clinics of North America 27(2), 283-303.*
- 5 Limited efficacy of conventional DMARDs after initial MTX failure in patients with recent onset RA. *Van der Kooij SM, et al. Ann. Rheumatic Disease 2007; 66:1356-62*
- 6 Perceived functional disabilities among rheumatoid arthritis patients. *Risto Tuominen et al. Rheumatology Int. DOI 10.1007/s00296-009-1043-z.*
- 7 'Measure of function in rheumatoid arthritis: individualised or classical scales?'. *Raphaela Seror et al. Ann. Rheum Dis. DOI: 10. 1136/ard.2008.102137*
- 8 'Perceptions of patients and professionals on rheumatoid arthritis care'. *A consultancy report by the King's Fund for the Rheumatology Futures Group, January, 2009.*
- 9 Services for People with Rheumatoid Arthritis. Report by the Comptroller and Auditor General. *National Audit Office - HC 823 Session 2008-2009 | 15 July 2009*
- 10 Fit for work? Musculoskeletal Disorders and Labour Market Participation. *A report by The Work Foundation, September 2007.*



- 11 Rheumatoid arthritis: The management of rheumatoid arthritis in adults. *NICE Clinical Guideline 79, February 2009.*
- 12 Appraising the value of innovation and other benefits. *A short study for NICE by Professor Ian Kennedy, July 2009.*
- 13 National Institute for Health and Clinical Excellence, First Report of Session 2007 – 08. *House of Commons Health Committee, January 2008.*
- 14 NICE submission to the Kennedy Report 'Appraising the value of innovation and other benefits', *June 2009.*
- 15 Decrease of RA-related orthopaedic surgery of the upper limbs between 1998 and 2004: *R.J. Weiss et al (2008): data from 54 579 Swedish RA inpatients. Rheumatology 47 (4): 491-4*
- 16 Systematic review of studies of productivity loss due to rheumatoid arthritis. *W. Burton et al (2006). Occupational medicine 56: 18-27.*
Fatigue reduction and physical function improvements associated with increased productivity at work and at home in rheumatoid arthritis patients. *J.M.W. Hazes et al (2008). Annals of Rheumatic Diseases 67 (Suppl II): 79.*



National Rheumatoid Arthritis Society Mapping Files

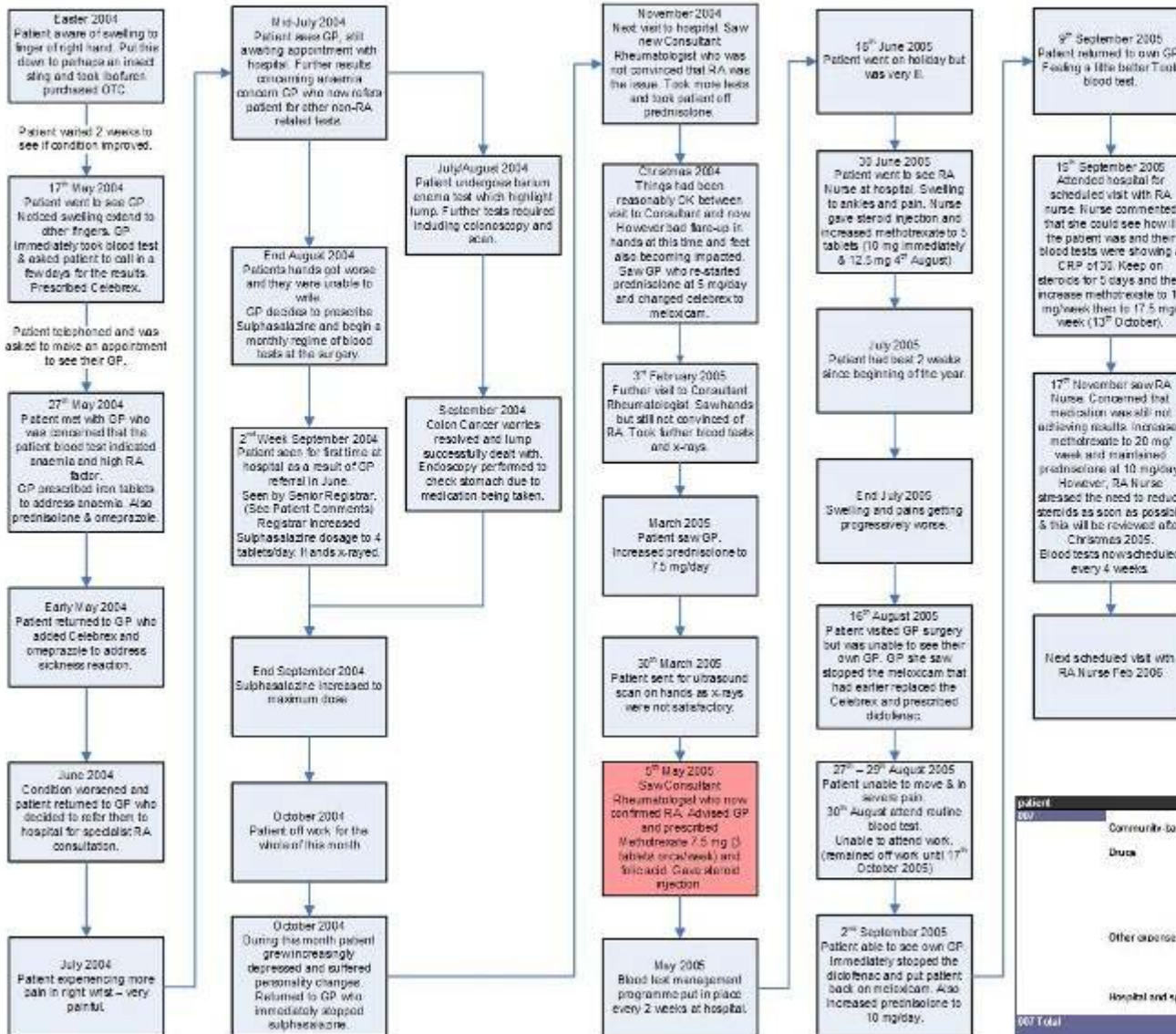


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NRAS Client 007 – Female: age 46

Tuesday, October 24, 2006



Patient Comments:

1. First visit to hospital Registrar very abrupt, 'yes, I think you have RA, of the things you can get this is what you did not want... You won't get better...' Felt he lacked any 'customer care skills'.
2. Lack of advice & education: you needed to ask, nothing offered.
3. Occupational Health help provided from employer due to patient's absence. Review of work station/environment to take place early in 2006: possible specialist PC keyboard and mouse.
4. Husband providing support and additional help.
5. Not warned about fatigue aspects.
6. Impacting work routine and travel dramatically.

NOTE: Nurse mentions anti-TNF but needs to clarify Feb 2006 due to funding issues

Patient's personal perspective of costs:

1. Patient bought annual prescription session ticket: £93.20
2. Forced to change car due to issues changing gear: financial cost £2500.00
3. New wedding ring and enlarge engagement ring: £250.00
4. Purchased own wrist supports: £25.00
5. Move to flat shoes
6. Replace taps at home: £50.00
7. New mouse/wrist support for home PC: £60.00
8. Headset for telephone: £50.00
9. Mileage to/from hospital: 2 miles @ 40p/mile = £0.80

patient	Community-based care	Community-based care	Total NHS Cost	Total Patient Cost
007	Drugs	Wrist supports Methotrexate Diclofenac Aspirin Analgesics Fluclozax	£283.00 £25.00 £25.00 £15.00 £100.00 £10.00	£503.00
	Other expenses	Home care and support Lack of anti-pain Prescription of pain Other	£753.68 £11.00 £156.33 £29.99	£950.99
	Hospital and specialist care	Hospital and specialist care	£1,875.26	£2,826.25
007 Total			£2,871.78	£3,155.42

National Rheumatoid Arthritis Society Mapping Files

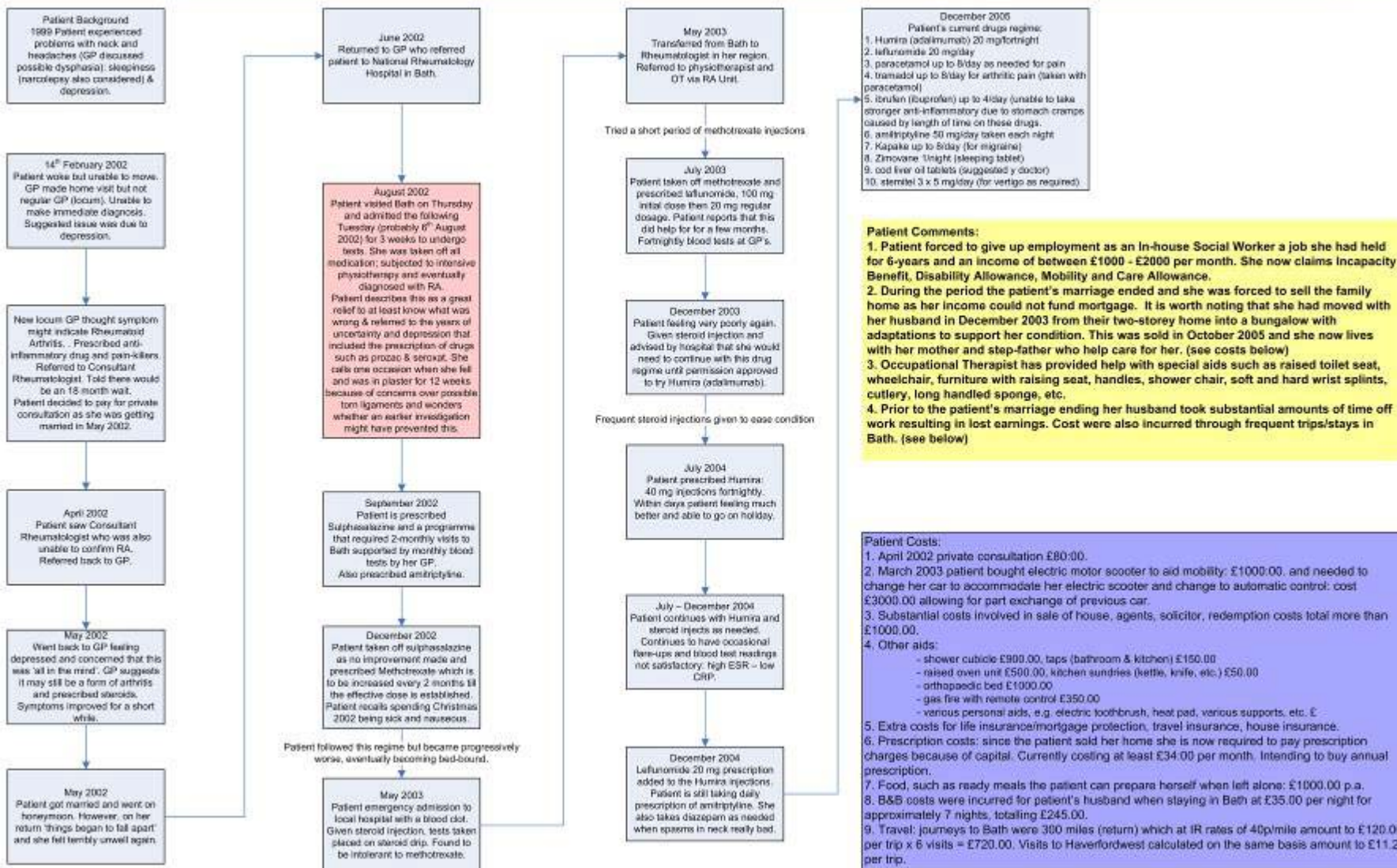
NRAS Client 010 – Female: DoB 23.05.75



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Wednesday, April 19, 2006



National Rheumatoid Arthritis Society Mapping Files

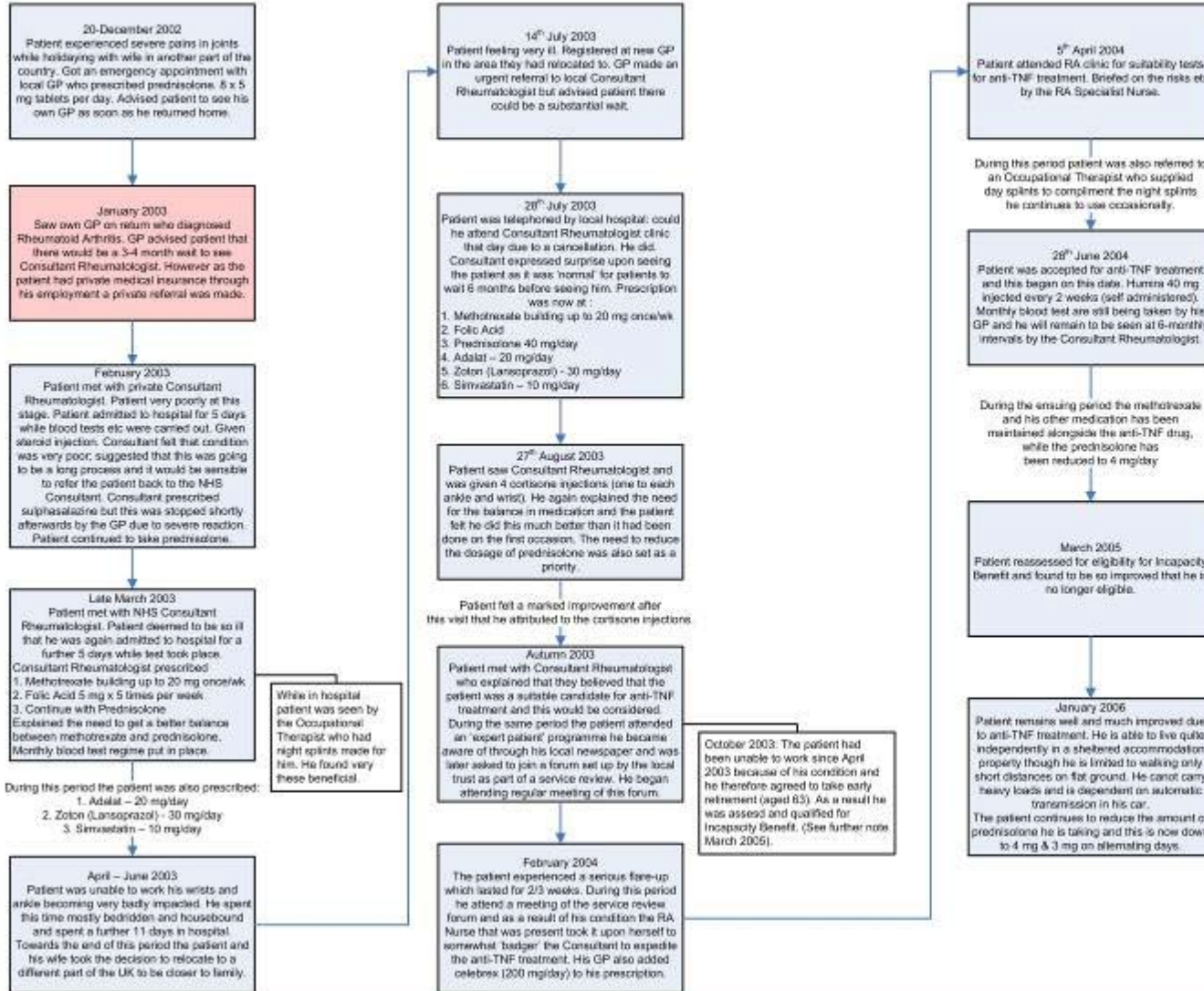


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NRAS Client 016

Wednesday, April 19, 2006



Patient Comments:

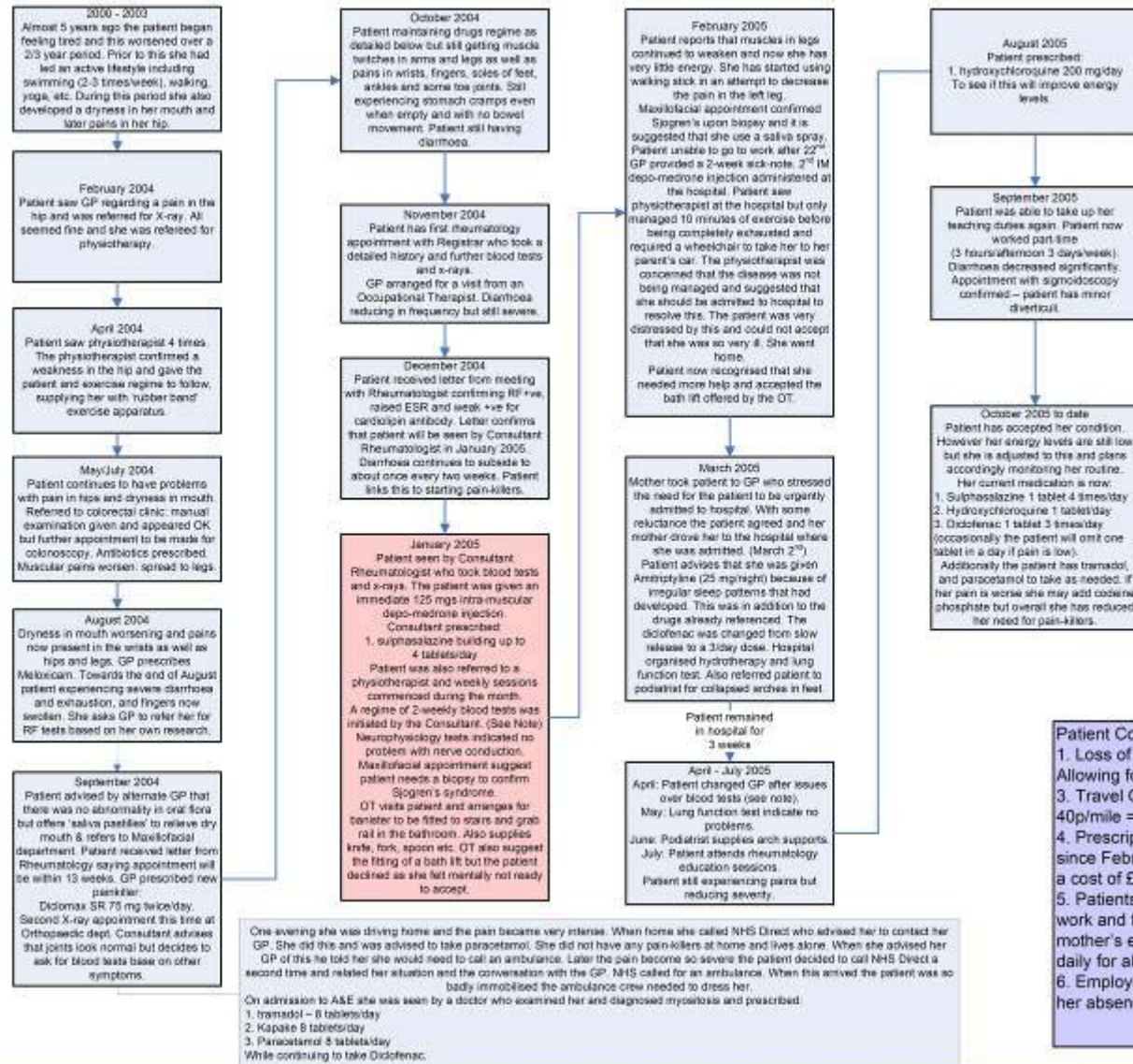
1. The patient's wife died very suddenly in October 2004.
2. Easter 2005: having moved to another part of the UK and taken up shared accommodation with his wife's daughter (his step-daughter) the patient has now been required to move into rented sheltered accommodation as his step-daughter needs to sell her home.

Patient Costs:

1. From the April 2003 till October 2003, when he took early retirement the patient was paid his full salary.
2. The patient had a second car for use in his work that was heavily subsidised by his employers. He was forced to sell this as a result of his employment ending and at a substantial loss of £2000.00.
3. Substantial cost have been incurred resulting from relocation and house move and this has been further added to with the recent move to sheltered accommodation amounting to £4162.00 for this second move.

NOTE: The patient has kept an exceptional record of his journey and the full details as he recorded them for 2003 are as follows:

1. 21 days in hospital
2. 22 visits to GP
3. 6 home visits by GP
4. 4 visits by District Nurse
5. 3 home visits by night service doctor
6. 3 visits to specialist nurse
7. 8 visits to Consultant
8. NHS Taxi provision total 250 miles
9. 4 Cortisone injections
10. 2 Depomedrone injections
11. Current medication amounting to 84 pills per week



Patient Comments:

1. She found it very hard to come to terms with the RA diagnosis and in her own words was "in strong denial" asking why this was happening to her. This continued even when admitted to hospital where the patient found it hard to accept her inability to walk. Counselling was offered while in hospital but the patient felt she was not ready for this. Patient felt very angry about her condition.
2. The patient lives in a major city but had moved from her parents home (approximately 5 miles) some time before the diagnosis while retaining her family GP. An issue arose with the need for a fortnightly visit by the phlebomist. This was initially agreed by one of the practice GP's but later rescinded. The issue was eventually resolved but required intervention by the Patient Advice & Liaison Service (PALS) and the Practice Manager. The patient later moved GP and blood testing was undertaken by the hospital.
3. New GP had no experience of RA medication believing that this is too specialist for a GP practice. This has remained with the hospital unit.
4. Patient has educated herself on her condition rather than rely on others.
5. Various items of equipment have been provided via the Occupational Therapist on NHS loan; this has included a bath lift, bath grab rails, bath step, commode, fitting a banister, cutlery, mesh cooking baskets, ergonomic knife, jar opener, perch stool, foot stool, trolley, walking sticks and a walking frame.

Patient Costs:

1. Loss of patient income due to sick leave and reduced working hours. Allowing for statutory sick pay this still amounted to £4000.00 lost income.
3. Travel Costs: Hospital journey was 6 miles each way = 12 miles @ 40p/mile = £4.80. Visits to GP were 2 miles e/w = £1.60.
4. Prescription costs: Patient initially paid prescriptions as issued but since February 2005 she has purchased an annual pre-paid certificate at a cost of £93.20.
5. Patients mother has supported her with daily visits that required loss of work and travel costs. This has been estimated at £2000.00 in loss of mother's earnings and travel costs (based on a return journey of 10 miles daily for almost 7 months) of £784.00
6. Employer Costs: The patient's employer had to provide cover during her absence and they have estimated this at £5500.00.