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Risk stratifying patients presenting with lymphadenopathy – an audit of 2 week wait referrals for haematological malignancy compared to NICE guidance

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Background:

Lymphoma is the 6th commonest cancer in the UK with Non-Hodgkin lymphoma (NHL) accounting for 4% of cancers and Hodgkin lymphoma (HL) less than 1%[1,2,3]. Given this, and that **the 5-year survival rates for NHL and HL in the UK (69% and 85.9% respectively) are lower than the rest of Europe**, there is need for improvement in the diagnosis and management of these patients[1,4].
One area to consider is the effectiveness of the 2 week wait (2ww) GP referral system used in the UK for suspected lymphoma. **This includes how appropriate such 2ww referrals are and how they compare with NICE guidance[5].**

One previous audit in a different trust found that the 2ww system accounted for only 14% of the newly diagnosed lymphomas in that trust over the investigated time period whilst only 51% of the 2ww referrals during that period were found to be haematological malignancy[6,7,8]. This data suggests that **a large proportion of patients with lymphoma were missed under the 2ww system but also that a large proportion of 2ww referrals were not necessarily appropriate.**

The **current NICE guidance for 2ww referral for suspected NHL and HL** suggests that a referral should be made *'in adults presenting with **unexplained lymphadenopathy or splenomegaly…[taking into account] associated symptoms, particularly fever, night sweats, shortness of breath, pruritus or weight loss**'*[5]. In this audit, I have investigated the 2ww referrals for haematological malignancy in one trust to assess the outcomes for these patients, how the referrals compared to the above NICE guidance and whether any recommendations can be made on further factors from examination or investigation which can help to risk stratify patients presenting with lymphadenopathy for 2ww referral.

Objectives:

This audit seeks to answer the following questions:
1. How common is lymphadenopathy as an indication for haem 2ww referral and what proportion of such patients are found to have lymphoma?
2. How do the associated symptoms accompanying lymphadenopathy in these 2ww referrals compare with the NICE guidance on suspected lymphoma?
3. Were there any notable differences between examination or investigation findings before and after being seen in the 2ww clinic in patients with and without lymphoma?
4. From this, can any recommendations be made to improve the risk-stratification for referral of patients presenting with lymphadenopathy?

Method:

-This is a **retrospective audit of 100 patients referred via the 2ww referral system for Haematological malignancy during 2017** and seen in clinic by Dr Lumley at Good Hope Hospital. This data analysis mainly **focuses on those patients who presented with lymphadenopathy as their main symptom.**

-Patient pathways were analysed, specifically looking at the indications for referral on the 2ww proformas, results of prior investigations, the consultants initial findings, results of further investigations post-clinic and final outcomes.

-Data was collected and analysed using Microsoft Excel and findings were compared with NICE guidance on 2ww referrals for lymphoma[5]. No patient identifiable data left the University Hospital Birmingham NHS trust. All data was appropriately anonymised.

Results:

A. Findings from total population:

Fig 1: Indications for referral in total population:

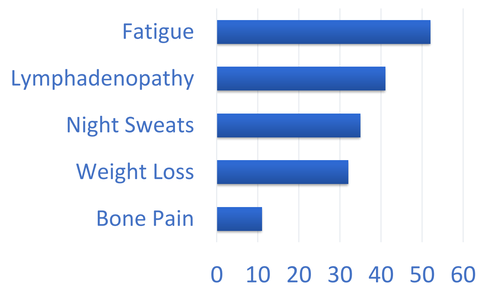
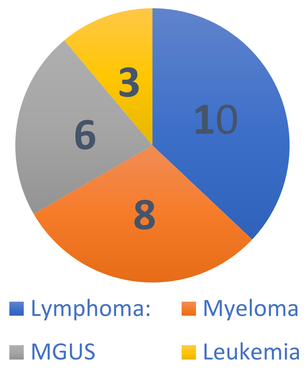


Fig 2: Haematological malignancies found (total = 27/100):



B. Findings from patients referred with lymphadenopathy:

Fig 3: Outcomes for patients presenting with lymphadenopathy:

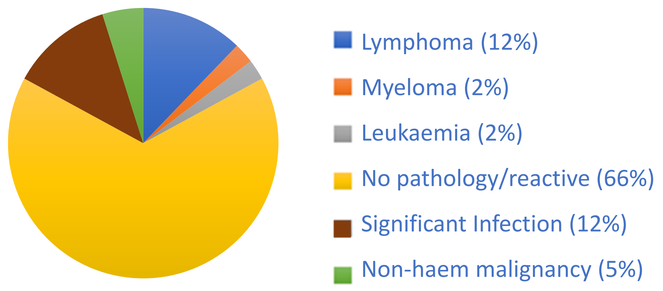
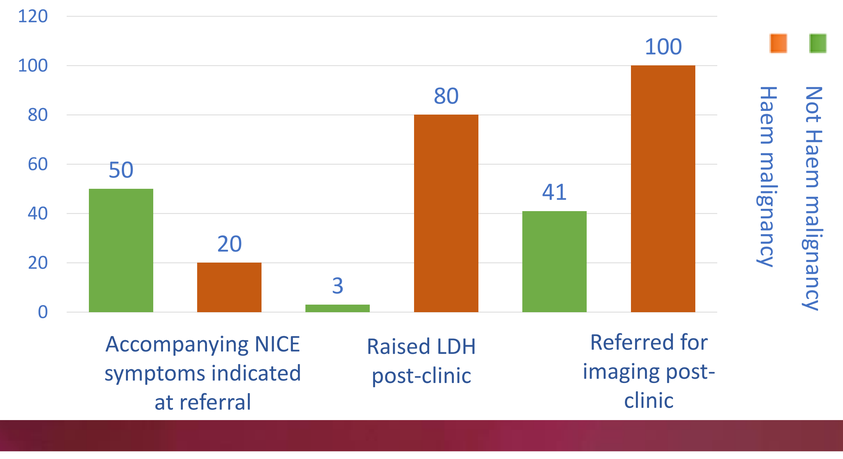


Fig 4: Comparing symptoms and investigations for patients found to have and not to have a haematological malignancy:



Conclusions and Recommendations:

1. Lymphadenopathy was the second most frequent symptom indicating referral (Fig 1). However, **only 12% of these patients were found to have lymphoma** whilst 78% had no pathology identified or reactive lymphadenopathy (Fig 3). Therefore, as expected, lymphadenopathy in itself has a low specificity for lymphoma and the significant majority of patients referred with this finding had no malignancy. **This suggests a need for further improvement in the ability of clinicians to use clinical history and examination of lymphadenopathy to differentiate between benign and malignant causes[8].**

2. Of the 41 patients referred with lymphadenopathy, 28 (68%) had associated features according to the NICE referral criteria[5]. This suggest that 2ww referrals made within this trust for suspected lymphoma had a relatively low concordance with NICE guidance.

3. Out of the 34 **patients who presented with lymphadenopathy but did not have haematological malignancy, 50% had other 'NICE defined symptoms indicating a lymphoma referral[5].** Of the 5 who presented with lymphadenopathy who had lymphoma, only 20% had these other symptoms. (Fig 4). **This suggests that in this population, the associated symptoms indicated by the NICE guidelines for referral were not specific or sensitive for lymphoma. This emphasises the variable presentation of lymphoma and the difficulty of using history of associated symptoms to risk stratify patients with lymphadenopathy.**

4. After the clinic:, only 1 patient **(3%) out of those presenting with lymphadenopathy was found not to have cancer had a raised LDH** (>250)[9,] whilst **of the 5 who had lymphoma, 4 pts (80%) had an elevated LDH** (Fig 4). **Although not used as a diagnostic tool for lymphoma, this questions the possible value of GPs testing for raised LDH alongside routine bloods before making a 2ww referral to help risk stratify patients with lymphadenopathy.**

5. Of the 34 patients later found not to have haematological malignancy, 41% were referred for further imaging (mainly ultrasound (USS) which ruled out malignancy). Given that 79% of those presenting with lymphadenopathy had no malignancy and that USS has a high sensitivity and specificity in differentiating lymph node pathology[10], **this suggests the potential value of a pre-2ww referral urgent USS of any suspicious lymphadenopathy where the GP is likely to refer. This has the potential to reduce the number of unnecessary 2ww referrals.**

Limitations:

-The conclusions made are limited to a small population of 100 patients in one trust, thus reducing the generalisability of the conclusions made.
-A small sample of the patients seen under the 2ww system were referred from A&E

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