

**ACE Vague Symptoms Projects  
AIREDALE, Wharfedale and Craven CCG  
ACE A38  
Electronic Referrals to Radiology for Suspected cancer**

**Overview**

To establish a new electronic referral system from GPs to Radiology in order to get triage on the most suitable imaging for a patient with suspected cancer presenting with vague symptoms.

**Context**

This project was established after consultation with local GPs and Airedale Hospital Radiology Department as a result of difficulties experienced in accessing the most suitable imaging for such patients under an urgent timescale.

Whilst AWC CCG at the time (2014) was performing better than the England average for 1 year survival rates at 70 % it was acknowledged that patients who presented with vague symptoms of cancer did less well overall in 1 year survival terms and often did not have an obvious pathway of investigation to be referred into.

In the light of setting up a new Malignancy of Unknown Origin Fast track service it was apparent that GPs needed a system of accessing urgent advice on the best radiological investigation for patients with vague but concerning symptoms of possible cancer.

**Aims and Objectives**

The overall aim of the project was to enable GPs to send electronic referral advice requests to radiology and for this to be an urgent service so that the correct imaging could then be organised within 2 weeks.

In getting radiological advice it was hoped that the total number of investigations per patient would be reduced and thus expedite the patient pathway and encourage earlier diagnosis of cancer patients presenting with vague symptoms.

**Description of the pathway**

The system requires GPs to provide clinical details and relevant past medical history along with a suggestion of the most appropriate imaging using an electronic advice template within Systemone. The GP gains patient consent to share the patient record with the radiologist and awaits a response.

The radiologist then receives this electronic advice request and replies within 2 working days with their suggestion of the most appropriate imaging.

The GP then decides if this is still the best course of action and arrange the test if deemed appropriate.

In order to establish this pathway it was necessary to create the electronic advice template within Systemone.

The pathway required approval by both the hospital trust and the CCG .

All GPs were invited to a pathway training session. This was undertaken by arranging a large central educational event which included presentations by local radiologists in how they can add value to the diagnostic pathway for patients and the CCG GP cancer lead.

In addition the CCG GP cancer lead visited individual practices to share this pathway with the practice teams and also help GPs identify which patients would benefit from this service.

The pathway was launched on 1<sup>st</sup> June 2015, initially for a 12 month period, following which an evaluation would take place and if successful a recommendation to continue in core business.

### Analysis

Evaluation of the pilot project was twofold, comprising of quantitative in the form of data collection and a GP survey to ascertain the qualitative aspect.

Data collection outcome measures focused on;

1. Total volume of imaging requests within the new pathway.
2. The conversion to cancer rate.
3. The % of requests being altered by the triage process.
4. The impact of staging of cancers within Airedale hospital.
5. The rate of admissions with new cancer diagnosis.
6. The rate of referrals to the Malignancy of Unknown Origin fast track clinic.

### Results

During the 12 month period there were a total of 96 referrals for advice on optimal imaging for patients with suspected cancer who did not fit the 2WW criteria for any site specific pathway.

Of these there were 5 referrals which were not appropriate as they were for radiology advice on non-suspected cancer patients so are excluded from the results. 2 patients could not be tracked.

In total 11 cases of cancer were identified, further details listed in the table below;

Cancer Type	Outcome
Oesophageal cancer with metastasis	Declined any further investigation. Received palliation and died 3 weeks later.
Widespread recurrence of cancer	Palliative care
Ca prostate with widespread metastases	Palliative care
Hepatocellular carcinoma	Palliative care
Lymphoma	Started chemotherapy on day 50.
Meningioma	Referred to Leeds
Cancer of unknown primary with widespread metastasis	Palliative care
Recurrence of cancer	Referred back to Leeds
Recurrence of cancer	Declined further investigations
Liver metastasis	Referred as fast track 7 days after being referred.
Kidney lesion suspicious of renal cell ca	Referred as fast track 22 days after being referred.

### Pathology

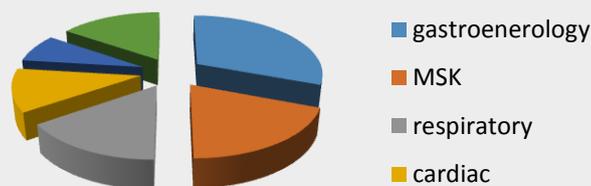
- 30 patients out of 89 were reported as having no pathology after initial imaging = 34%
- Of these patients 8 went on to have further referrals = 26 %.

Onward referrals from normal scan findings ;

- gastroenterology – 2 cases
  - general surgery
  - 2WW lower GIT fast track
  - colonoscopy
  - urology
  - respiratory
  - oncology as already known to this speciality
- 20/30 normal scan patients subsequently have had no further input from secondary care since their initial investigation.
  - 2/30 normal scan patients cannot be traced on the system.
  - There are a few other patients whose results cannot be obtained by the cancer manager who undertook the audit

### Non cancer pathology found in 26 patients

#### SITES



- Gastroenterology related pathology was the most common finding with pancreatitis, chronic liver disease , diverticulitis , and constipation being found.
- MSK pathology included degenerative disc disease, spondylosis , bursitis and joint disease unspecified.
- Respiratory pathology included interstitial lung disease, emphysema , and chest infection
- Cardiac causes were Congestive Cardiac Failure and cardiac ischaemia.

### GP Survey

- There was a GP survey implemented using survey monkey in December 2015 and July 2016, however the uptake of the survey was disappointingly low.
- Overall results are positive, with the majority of GPs stating that the service was useful and the advice provide by the Radiologists change their initial investigation thoughts.
- All GPs who responded to the survey stated that they would likely use this service again and recommend it to others.
- A full breakdown of the survey questions and responses can be found in the embedded document below.



ACE Survey  
Summary - charts.ppt

### Patient survey

As this was a new pathway involving better communication channels between primary and secondary care, it was unfeasible to undertake a patient survey. Patients were not able to compare this service with any existing services.

There was however informal feedback from some patients on how quick the diagnostic appointment had been arranged.

### Impacts and Benefits

- The results show that 91 patients were referred into this service as having a serious suspected cancer diagnosis with no obvious referral pathway to follow.
- This volume of referrals was twice that of the clinic that used to run at Airedale for patients with suspected cancer but was stopped in 2014 when the MUO fast track changes were put in place and the oncologist previously running the clinic retired.
- From the results it has been shown that the conversion rate to cancer is in fact higher than the 2WW referral average of 10%.
- Therefore it is reasonable to conclude that the types of patients being referred were appropriate (after the initial few patients without suspected cancer were taken out of the results and GPs fully understood the service.)
- The cohort than had a normal scan following the E consult that went onto to have no further investigations was surprisingly high at 66% suggesting strongly that the added value of a radiologist in the decision making process resulted in the right test on the first attempt. It was not possible to gauge what action the GP would have done is they had not had the E Consult advice as outline above but it seems they were more reassured and did not proceed

with as many follow up tests or referrals as a result of these findings.

- This service hopefully going to be commissioned long term following discussion at CCG Board level and will be in addition to the Multidisciplinary Diagnostic Clinic that is about to be launched as part of the ACE 2 Pilots.
- It will be helpful to continue to evaluate the role that this service may have alongside the MDC service over the next 2 years.

### Metrics and Outcome Measures for Intervention Studies

Activity and outcomes in the population receiving intervention	Estimated eligible population size		170000
	Number undergoing intervention		96
	Primary care consultations in those undergoing intervention		At least 1 per patient
	Secondary care consultations in those undergoing intervention		21 patients no further follow up at all
	Major investigation/procedure 1	Specify procedure	Chemotherapy for lymphoma
		Number undergoing procedure	1
	Major investigation/procedure 2	Specify procedure	Palliative care
		Number undergoing procedure	6
	Mean (SD) time from primary care referral to diagnosis (targeted cancer)		All imaging done / reported and through MDT within 3 weeks .
	Mean (SD) time from primary care referral to diagnosis (other)		3 weeks
	Number of targeted cancers diagnosed)	Stage I	
		II	
		III	
		IV	6
		Unknown	2
Conversion rate - proportion of patients referred who are subsequently diagnosed with cancer		12.3%	
Mean (SD) time from primary care referral to treatment		Difficult to say as most received palliation	
Number of targeted cancers diagnosed as a result of A&E presentation		None in this cohort.	

#### Comments about the project from the ACE 1 Project Steering Group:

*“This service took a concerted amount of determination to set up but has proven it's usefulness by the fact that 14 months on there continues to be a steady rate of E consults. The results of these show a significant number of cancers as well as serious pathology being diagnosed.”*



*“It was an interesting and fast –paced innovative project which adds value by insuring the correct use of resources at the correct time. This in turn meant patients attending hospital only when they needed to and having the correct investigations performed for their vague symptoms.”*

*“The identification of the data set for the ACE1 was agreed at an early meeting however this changed as we moved through the project and we became more aware of our needs ensuring we were capturing comprehensive data for the project aims.”*

*“The use of technology (S1) enhanced the turn round time for response and gave us an auditable trail of the recommendations made.”*

*“We aim to continue this service in the short term but are unclear whether it will still have a useful role once the MDC is in action.”*