

Striking variation in diagnostic pathways for urological cancers: Evidence from the Cancer Waiting Times data

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Background

- Initially looked at because there was a suspicion that patient with upper-tract urological tumours were waiting much longer to be treated.
- Survival for upper-tract urological tumours is low and decreasing – related to delays to treatment?
- Expanded into examination of effect of age and deprivation on the overall waiting time, and component parts.
- Are these variations acceptable or inequitable?

Method

- Primary source of data is the Cancer Waiting Times (CWT).
- All urological cancers with referral date in 2011 or 2012 selected.
 - Six groups: prostate, bladder, kidney, penile, testicular and upper-tract.
- Age at referral, quintile of income deprivation, Cancer Network extracted.
- Overall time from referral to treatment calculated.
 - Targets not a focus of this study.
- Regression analysis used to determine if there were trends in variation with age or deprivation.

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Initial findings

- All urological cancers are underrepresented in the CWT database: 68% to 85% of all cancers (based on 2010 incidence).
- A large proportion of records hold no mention of the patient being discussed at an MDT meeting: 43% (Kidney) to 63% (Penile).
 - Likely to be predominantly due to data issues.
 - Checking a small sample with a trust shows discrepancies.
- Of those records which do have an MDT discussion date, many were after the date that treatment commenced: 19% (Kidney) to 90% (Bladder).

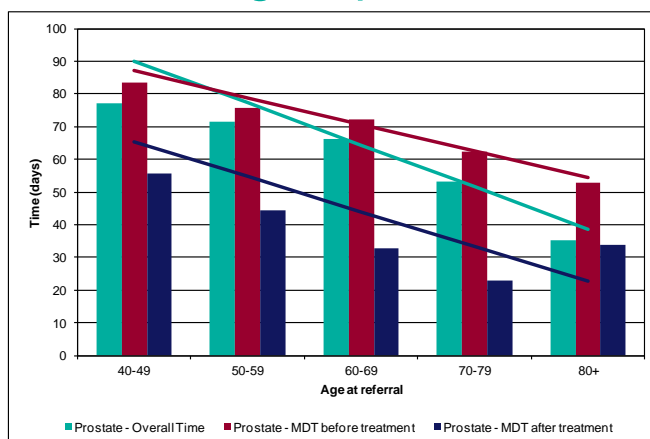
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Average time from referral to treatment (days)

	Prostate	Bladder	Kidney	Upper Tract	Testicular	Penile
All cases	55.9	40.2	59.8	70.9	19.6	46.6
MDT <i>before</i> treatment	66.4	52.2	63.2	78.4	25.2	67.2
MDT <i>after</i> treatment	34.2	39.4	51.9	55.1	18.0	35.1
No MDT recorded	52.7	39.9	58.1	67.7	19.0	45.8

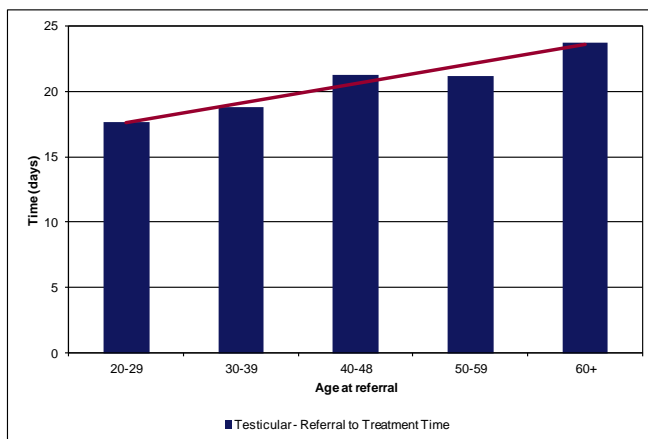
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Variation with age – prostate cancer



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Variation with age – testicular cancer



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Variation with age

- There is variation in recording of MDT discussion with age.
- Prostate cancer patients are less likely to have a recorded MDT with age (OR = 0.9) and it's less likely to be before treatment (OR = 0.59).
- Bladder cancer patients are more likely to have their MDT discussion before treatment with increasing age (OR = 1.16).
- Testicular cancer patients are also more likely to have their MDT discussion before treatment with increasing age (OR = 1.12).

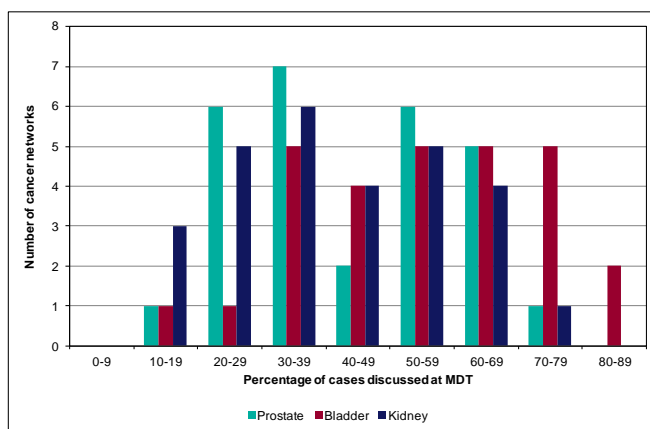
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Variation with deprivation

- There is little variation in time from referral to treatment with deprivation.
- Prostate cancer patients are less likely to have an MDT recorded with increasing deprivation, and it's less likely to be before treatment (OR = 0.96 for both).
- Bladder cancer patients are less likely to have an MDT recorded with increasing deprivation (OR = 0.93), but it's more likely to be before treatment (OR = 1.06).

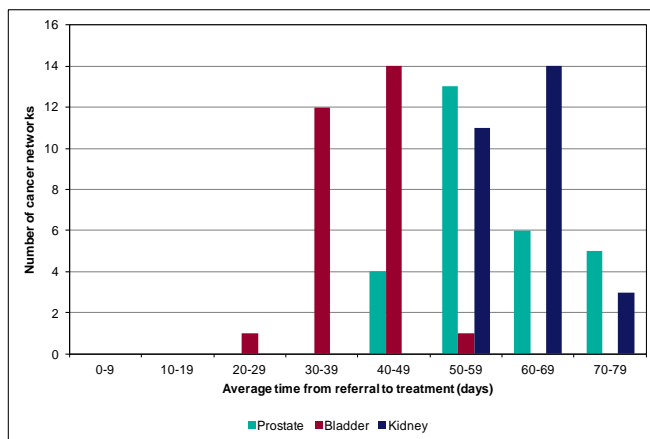
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Variation by cancer network in MDT discussion recording



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Variation by cancer network in average time from referral to treatment



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Discussion

- Which of these results are explainable?
 - Elderly prostate cancer patients more likely to commence hormone therapies, which can be started immediately – shorter time and before MDT.
 - Those with early bladder cancer often have a cystoscopic resection – diagnosis and treatment at the same time. Not possible to have MDT before treatment.
 - Single treatment option for young testicular cancer patients, plus short targets to meet.
- And which are not?
 - Why the data which are held by trusts do not get into this dataset.
 - No obvious reason why there should be the observed variation in MDT recording with age and/or deprivation.
 - Why the time from referral to treatment should vary so widely by cancer network
 - The type of patients will have an effect here.

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Discussion

- The original question was about upper-tract urological cancer patients.
 - A long pathway, possibly due to difficulties in diagnosis.
 - We need to see if this has a measurable effect on outcome.

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Conclusion

- The Cancer Waits Dataset is far from perfect, but still gives an acceptable sample to analyse waiting times at a population level.
- However, we are limited in the quality of the evidence we can produce by the data issues – need to review the whole system of how trusts supply data.
- There are variations in time taken from referral to treatment.
 - Some of these are related to the treatments and nature of the disease.
 - Others are more difficult to explain.
 - Access to diagnostic services may be a big factor.
- Further work required to quantify variations in outcome in relation to waiting times.
- Strategic Clinical Networks should investigate geographical variation, and try to identify potential causes.

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