

2015/2016 Summer Studentship Project Application Form

Send to: Research Office, University of Otago Christchurch, PO Box 4345, Christchurch, by 5pm on **3 July 2015**

Supervisor Information (First named supervisor will be the contact):

Supervisor's Name and Title(s): Dr Kate Gardner, Dr Ruth Spearing, Mr Gordon Beadel, and Dr Tristan Pettit

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Research Category (Choose one category only – to be used for judging the students' presentations):

Clinical x

Laboratory

Community

Project Title (20 words MAXIMUM);

Assess dose intensity of methotrexate and other chemotherapy agents in AYA patients treated for osteosarcoma in New Zealand 2000-2009

Project Description:

Introduction:

Osteosarcoma is the most common bone cancer in the adolescent and young adult (AYA) population. A retrospective chart review of AYA with bone cancers diagnosed between 2000 and 2009 was undertaken in 2014. For the patients diagnosed with osteosarcoma the outcome was inferior to internationally published data. In particular, for those who did not receive methotrexate the 5 year survival was 36% compared with 61% for those who did and the international benchmarks of 63-68%.

Treatment for osteosarcoma consists of multidrug chemotherapy and surgery. Standard multidrug chemotherapy comprises cisplatin, doxorubicin and high dose methotrexate. The standard of care has not changed since the 1980s and the role of high dose methotrexate remains controversial. A Cochrane review in 2011 concluded that no advice could be given on the role of high dose methotrexate due to the lack of good quality data. However case series have suggested an inferior outcome for those patients who do not receive high dose methotrexate.

With the inferior outcomes seen in our young people with osteosarcoma further insights into potential areas for improvement and standardisation in service delivery are vital

Aim:

To assess the impact of dose intensity of chemotherapy in particular methotrexate on survival for AYA patients treated for osteosarcoma in New Zealand between 2000 and 2009

Method:

A retrospective chart review of the previously identified patients treated for osteosarcoma in the South Island between 2000 and 2009.

56 patients were identified in New Zealand and the audit will be conducted in conjunction with a review of the North Island data. This will be conducted by Dr George Laking and Mark Winstanley at Auckland City Hospital. A standardised dose density performa will be used across both sites with standardized statistical analysis.

Student Prerequisites (eg. Medical Student) if applicable:

None