



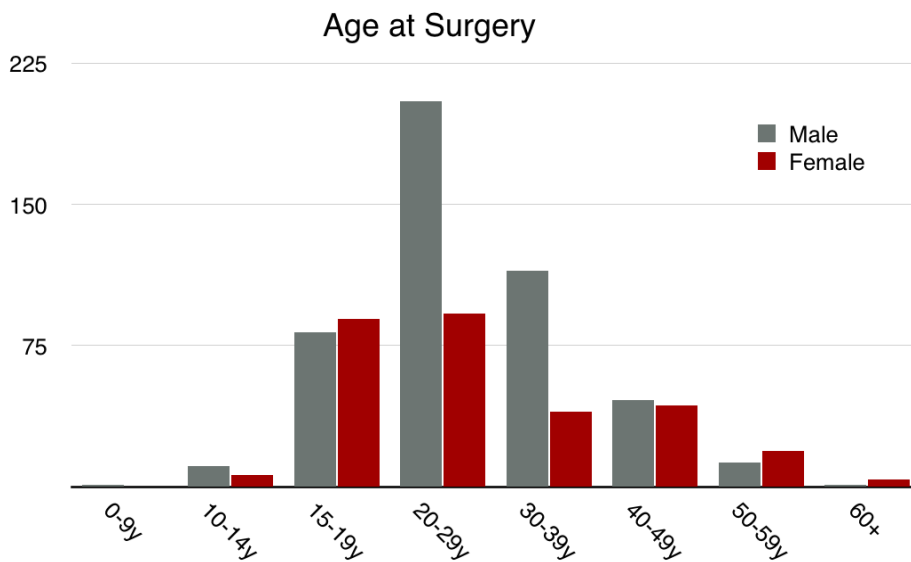
New Zealand ACL Registry Annual Report 2015

Results:

As of 1st September 2015, 1136 patients have been enrolled in the ACL registry. 1094 primary and 142 revision ACL reconstruction recorded. In this report the data regarding primary ACL reconstructions is presented. Subsequent reports will include both primary and revision data.

Demographics:

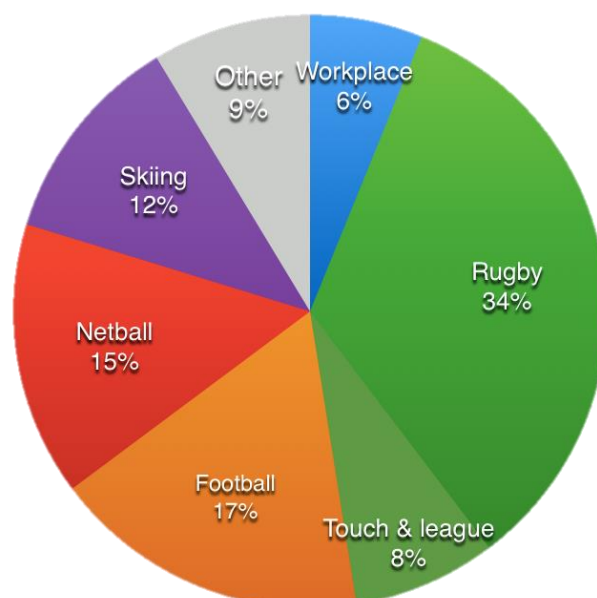
704 male, 432 females (62% males)
Average age at surgery was 28.8y (9-68y)



The average delay between injury and surgery was 10.3 months.

Mechanism of Injury:

Rugby, in its various forms, was the mechanism of injury in 42% of patients, with football (17%), netball (15%) and snow sports (12%) being the other most common causes.

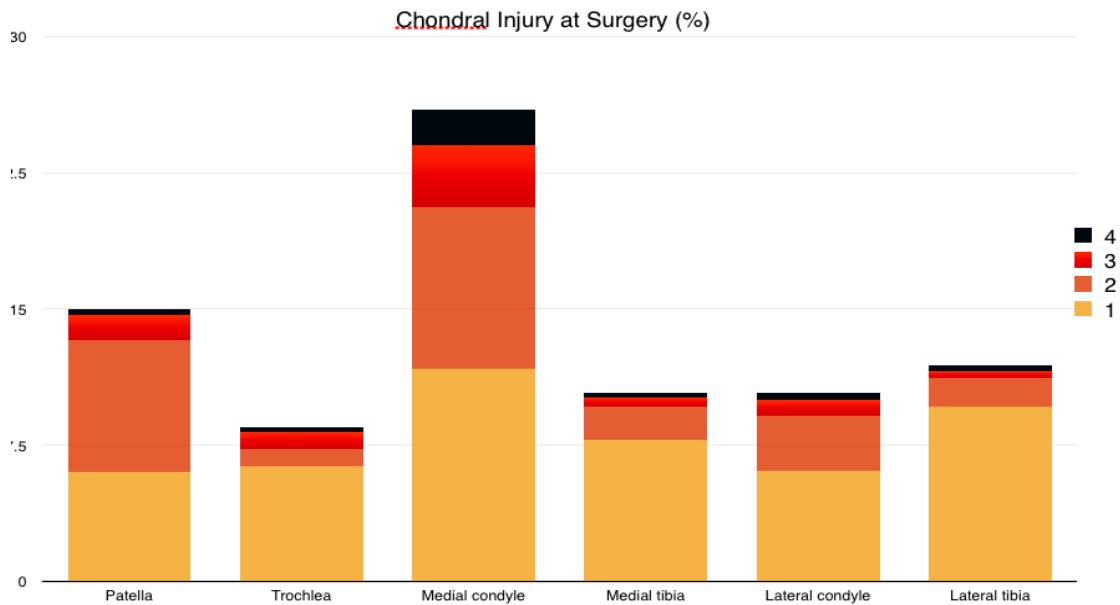




Operative findings:

Chondral injury:

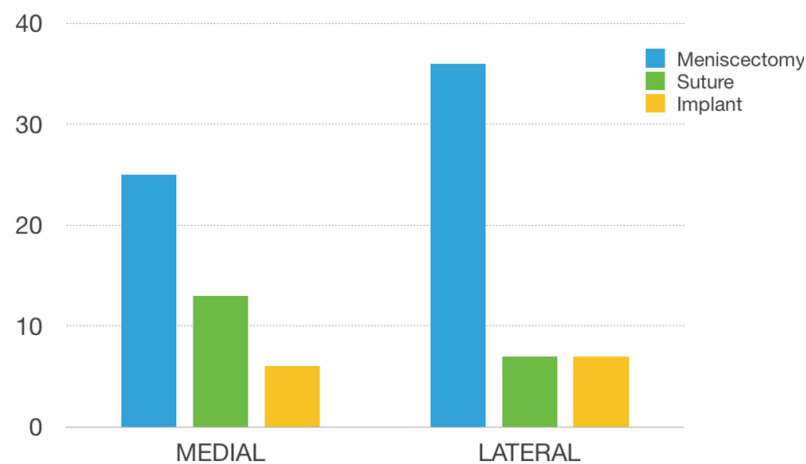
Chondral injuries were common at the time of surgery, the most frequently and severely affected area was the medial femoral condyle, being damaged in 25% of cases, it was also the area most frequently associated with higher grade (ICRS grade 3 and 4) chondral injuries.



The majority of the injuries were not treated (74%). Chondroplasty was completed in 6% and microfracture in 2%. The chondral treatment field was not completed in 18% of operative data forms.

Meniscal injury:

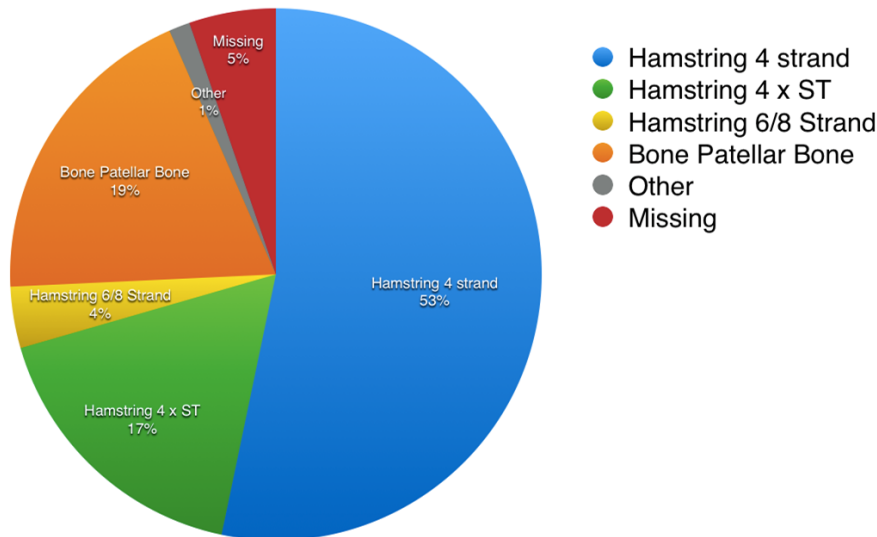
	Medial (%)	Lateral (%)
Intact	54	46
Tear	30	37
Missing data	16	17





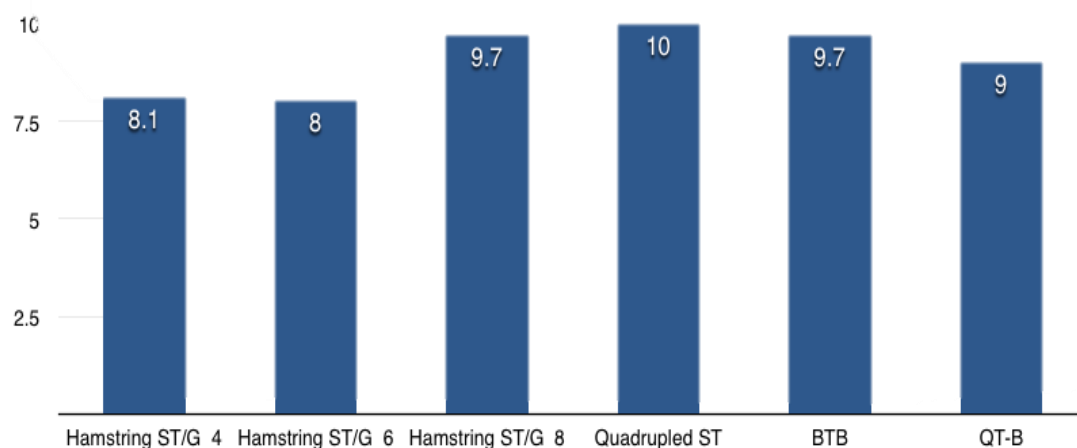
Graft Choice:

For primary ACL reconstruction, the predominant graft choice is hamstring, accounting for 70% of all primary ACLs. 53% are 4 strand grafts with semitendinosus and gracilis. The majority of the others are quadrupled semitendinosus grafts (17%), although there is a trend for an increasing use of 6 to 8 strand grafts (4%). BTB is the next most popular graft, making up 19% of primary ACLs.



At this point, there is a trend for larger grafts with the multiple semitendinosus or 8 strand semitendinosus and gracilis grafts, compared with 4 or 6 strand ST/G grafts. There is no significant difference between the first 2 and the diameters achieved with patellar or quadriceps tendon grafts.

Graft diameter by graft choice:



Tunnel drilling technique:

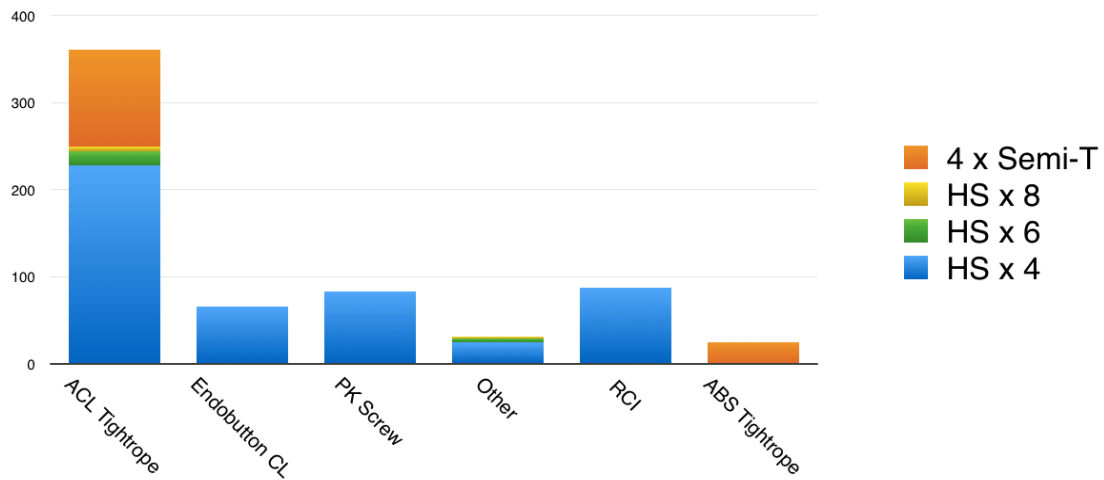
Tibial tunnel drilling data indicates that all are completed with antegrade drilling techniques. However, the operative data form was not completed in 11% of cases.

Femoral tunnel drilling was via an anteromedial portal in 78% of cases, transtibial in 9% and outside-in with a Flipcutter technique in 7% of cases. Data was missing in 6% of cases.

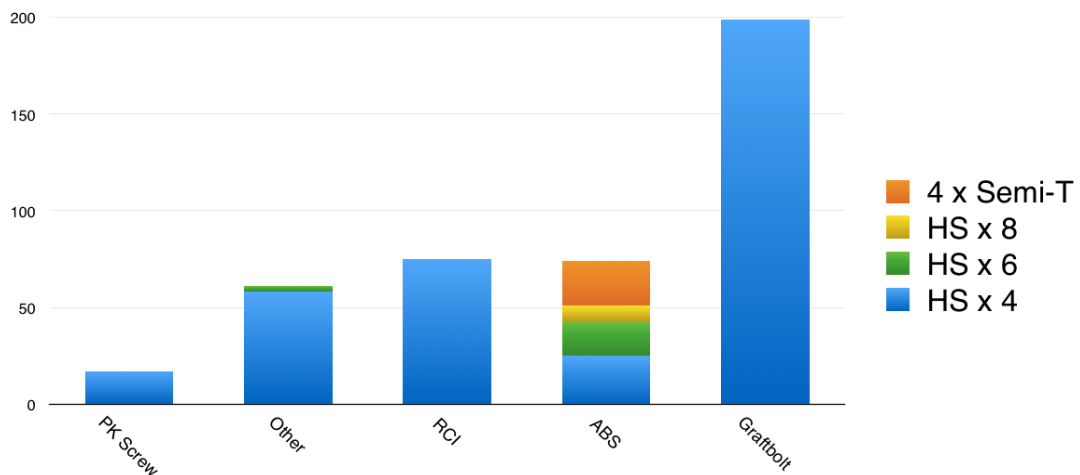


Graft fixation technique:

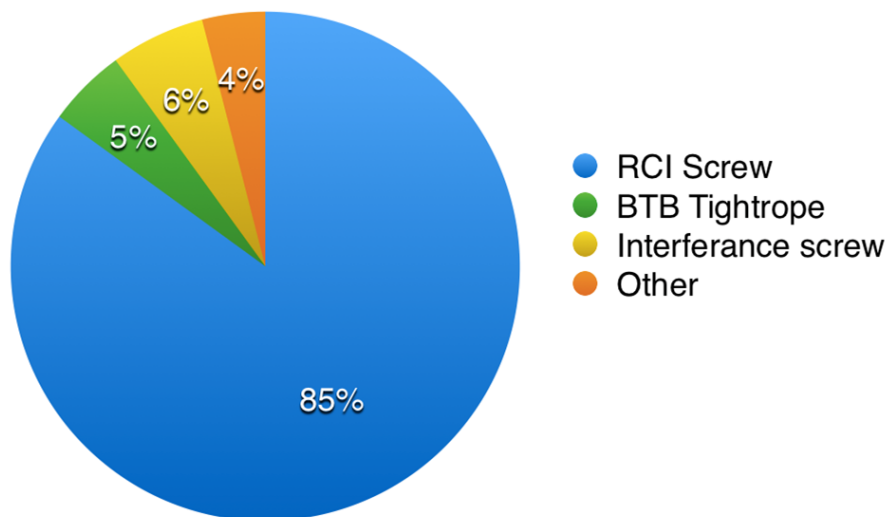
Hamstring tendon: femoral



Hamstring tendon: tibial

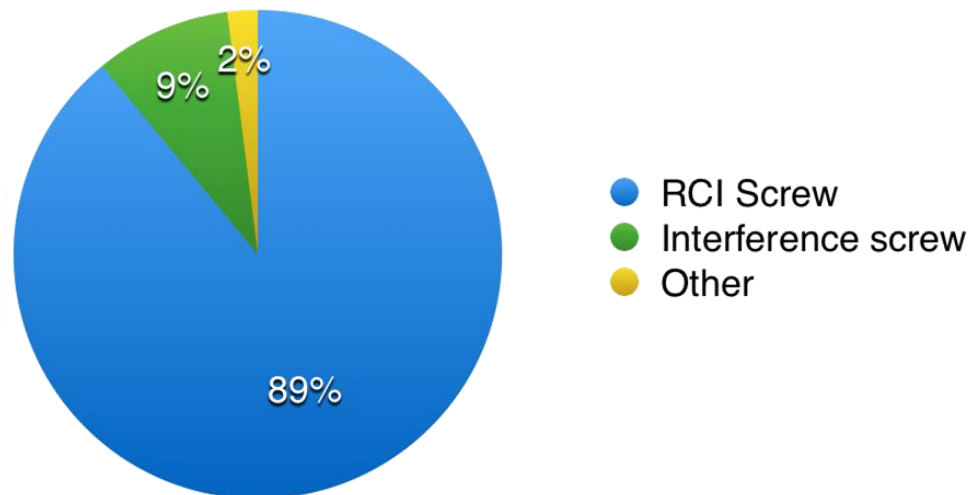


Patella tendon graft: femoral





Patella tendon graft: tibial



Antibiotic use:

Cephazolin	71%
Cefuroxime	1%
Augmentin	1%
None recorded	27%

Thromboprophylaxis:

None	89%
Aspirin	6%
Clexane/footpumps	3%
Other	2%

Complications:

These are broken down into intra-operative complications, post-operative complications and re-ruptures. Complications are captured in 3 ways. Firstly, treating surgeons enter operative complication on the operative data form. Secondly, post-op complications are recorded on the complications form and returned to the registry. Finally, patients completing follow up questionnaires are asked if they have had any complications relating to their ACL surgery or further injuries to their knee. Currently, recorded complications include 15 intraoperative and 2 post-operative complications.

Intraoperative:

Implant failure	7
Graft harvest failure	6
Other equipment failure	2

Post-operative:

Arthrofibrosis	1
Graft rupture	1

These rates are significantly below what is expected, based on other ACL surgery research. A greater emphasis on the accurately recording complication data is required. We are currently looking at ways to facilitate that as we further develop the ACL registry.