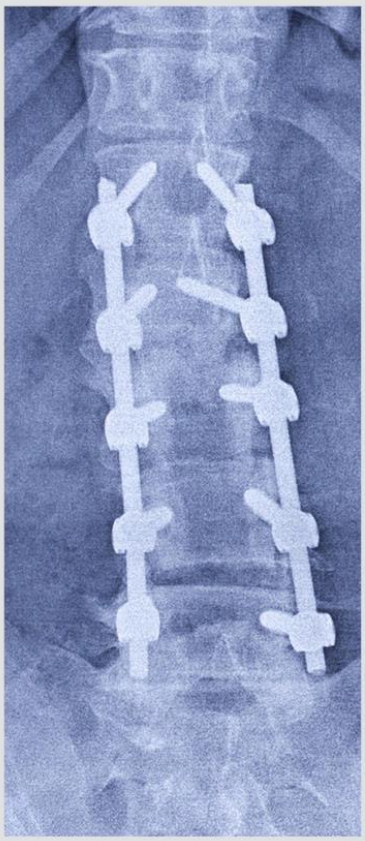

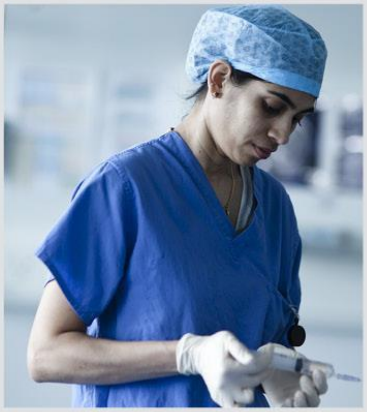

RCSI SURGICAL AFFAIRS

Trainee Progression Information
Surgical Training Pathway
2019

RCSI DEVELOPING HEALTHCARE LEADERS WHO MAKE A DIFFERENCE WORLDWIDE

Section 1 - Introduction and Purpose

This document provides those with an interest in pursuing a medical career in surgery information related to the surgical training pathway in Ireland. Within the document, we have included information around the progression of trainees from each stage of training particularly for their appointment onto the core surgical training programme, progression to specialty training and final certificate of completion of surgical training. The metrics contained in the document present the reader with demographic and academic information on recent trainees who have come through the programme. while this document is representative only and should not be used as a basis for preparing for selection, it may provide assistance to future trainees in support of their training journey and experience. We strongly advise that you always check with your chosen specialty for the latest recruitment and selection process details via the Surgical Training in Ireland website https://www.rcsi.com/surgery/training/surgery.

Section 2 – Overview of Surgical Training

The National Surgical Training programme is an eight-year training programme illustrated in Figure 1 below and is intended for medical graduates who have completed their internship and wish to pursue a career in surgery. While training primarily takes place in the hospital, trainees are required to attend mandatory training days in the RCSI as part of their curriculum.

The aim of the National Surgical Training Programme is to ensure that trainees satisfactorily complete a comprehensive, structured and balanced training programme, which prepares surgeons for independent practice in a particular specialty enabling them to enter the Specialist Register in their chosen specialty and be eligible for appointment as a consultant in the Republic of Ireland.

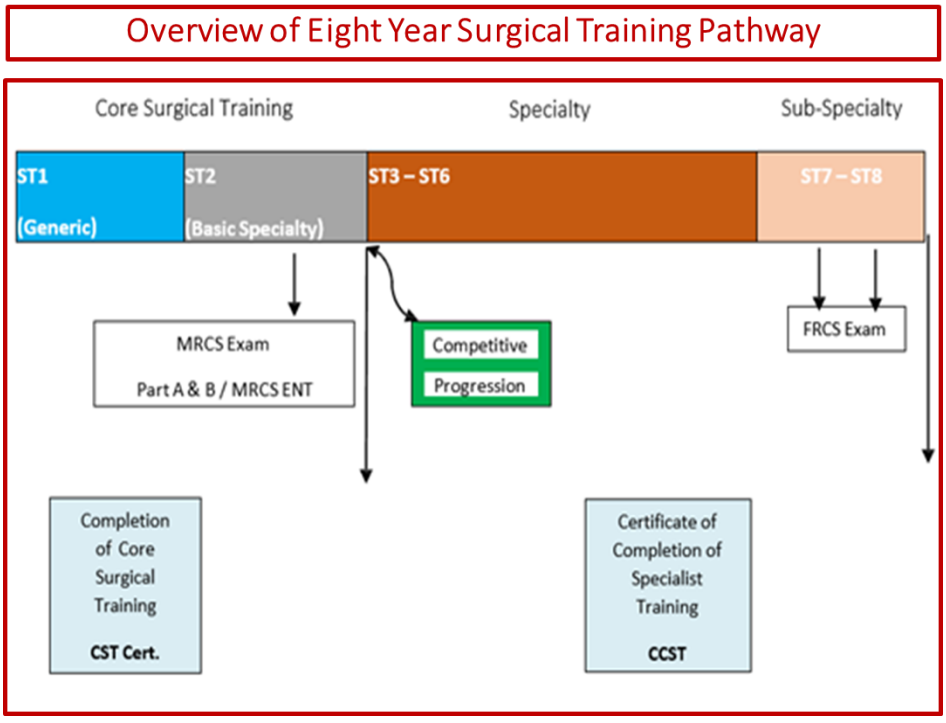

Figure 1 *Overview of Surgical Training Pathway*

Section 3 - Core Surgical Training (ST1 – ST2)

The initial stage of surgical training (ST1 - ST2) is a two-year introduction to the 'generality' of Surgery, called Core Surgical Training (CST). This stage reflects the need for trainee surgeons to achieve competence in a range of surgical knowledge, skills and behaviours, most of which are not speciality-specific. Year 1 (ST1) is a generic year which is undertaken by all surgical trainees and includes rotations in General Surgery and another Surgical Specialty. In ST2, trainees begin 'basic' training in their chosen specialty.

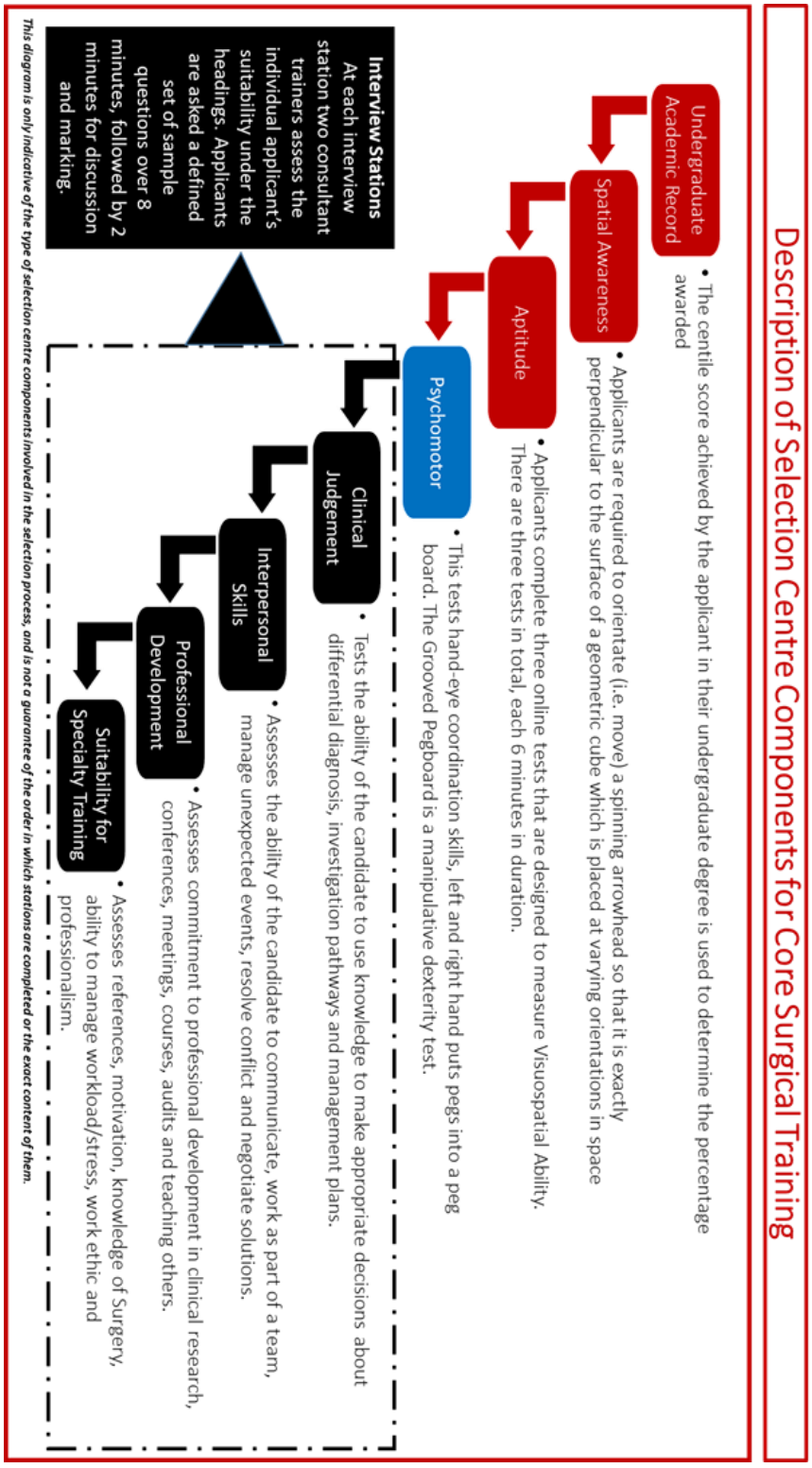

Figure 2 *selection components for CST both at the pre-interview stage and at interview.*

3.1 Progression data for 2017 CST Intake

In 2017, 129 applicants applied for the CST programme. From this initial group, 115 were deemed eligible and were invited for interview and 107 presented for interview. Of the group that were interviewed 60 (46% of applicants) were offered places on the programme.

From the 60 who commenced on the programme in 2017, all 60 progressed to into the Specialty year ST2 with 95% entering their first choice specialty. At the end of the two-year programme, 48 trainees (80%) completed the training programme.

Of the 12 trainees that did not complete the programme within the two years, 1 withdrew, 1 was on personal leave from the programme and 10 are awaiting completion of MRCS exams before receiving certificates of completion. From the original group of 60 trainees, 32 (53% of the original intake) progressed directly to Specialty Training (ST3), an additional 7 trainees entered Specialty Training via the Equivalent Standards Route (ESR) The ESR route is an alternate route to Specialty training for trainees who are unsuccessful at progressing direct from CST previously or who undertaken may have completed equivalent training elsewhere

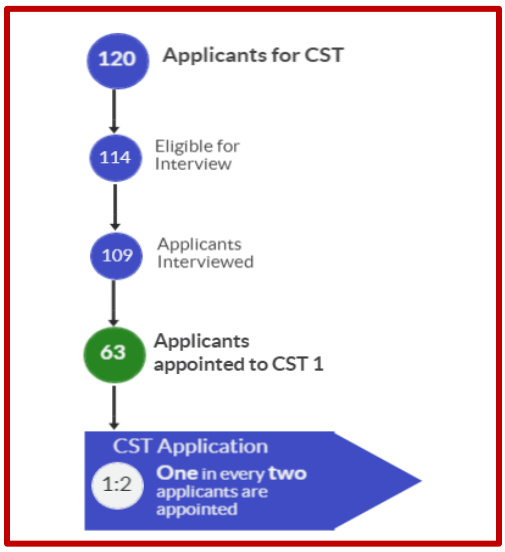

Figure 3: 2017 CST intake

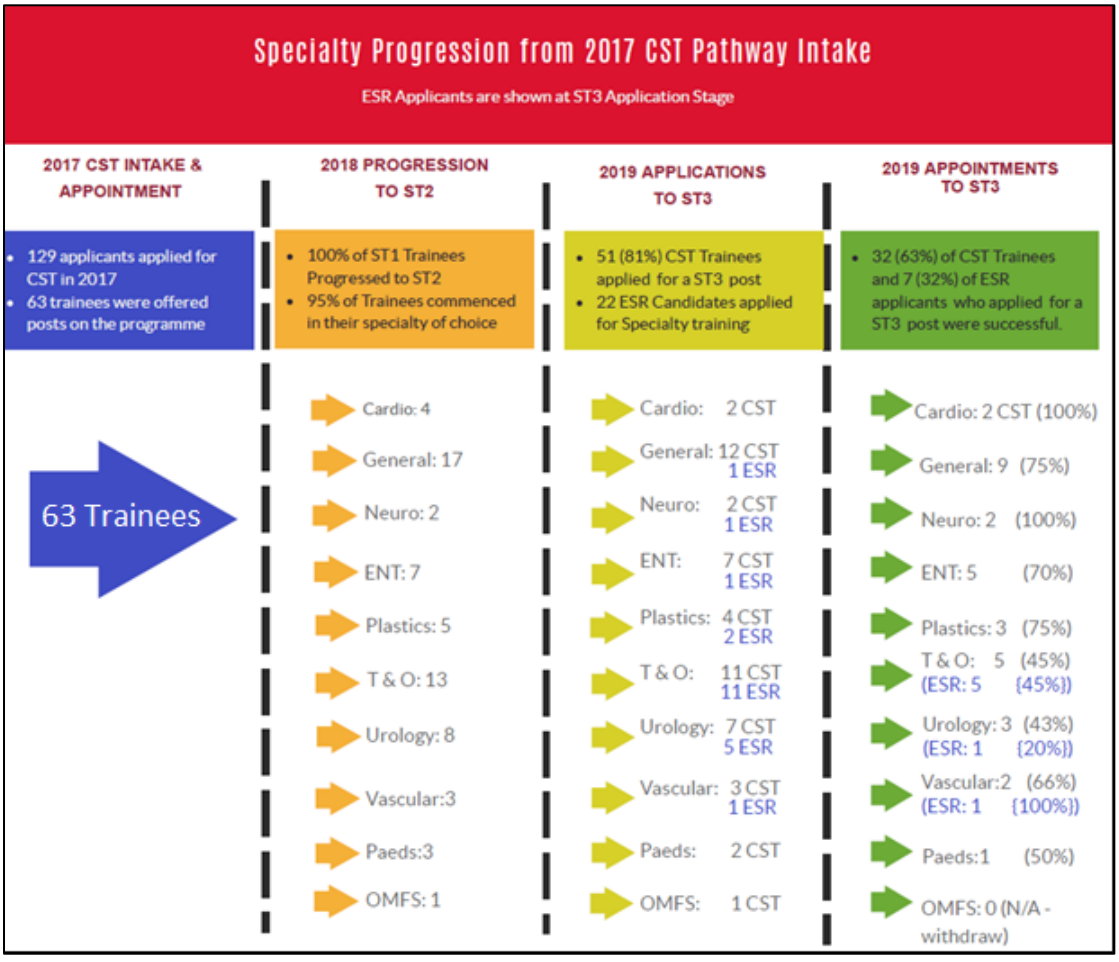

Figure 4 *Progression Metrics from CST Application to CCST*

In 2019, 120 applicants applied for the CST programme. This was an increase of 10% on the previous year. From this initial group 114 applicants were deemed eligible and were invited to complete the online assessments and interview.

From the initial 120 applicants, 109 presented for interview. Of the group that were interviewed 63 (52% of the original applicants) were offered places on the programme, this represents a ratio of 1:2.

Figure 4 above maps out how the most recent group of trainees to complete the programme (2017 intake) progressed through the programme from the application through to completion of CST at the end of the two years.

3.2 Demographics and Selection Component Data for Core Surgical Trainees

In analysing the data from the 2019 intake we have identified some demographics and performance components that differentiated candidates and their performance in the overall selection process.

Mean Age

The mean age for a successful applicant to CST in 2019 was 27 years. The mean age has varied slightly over the past three years (**Figure 5**) but the mean age of successful applicants over this time period is 28 years of age at the time of application.

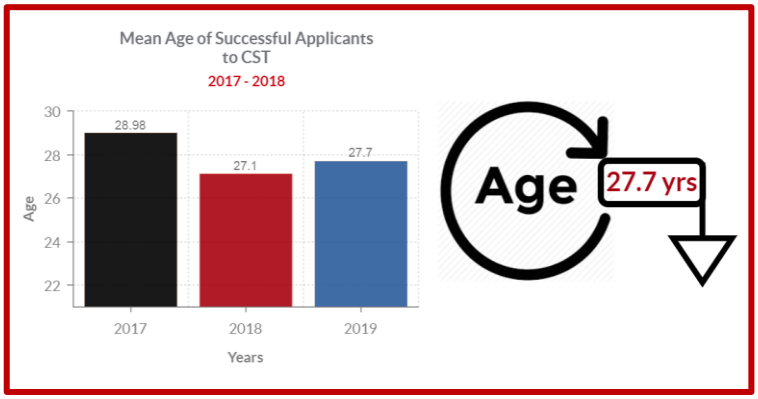

Figure5 *Mean Age of Successful Applicants to CST*

Post - Internship Experience

Experience in post-internship is another important factor for successful candidates to the CST programme. Since 2017 we have seen a year on year increase in the proportion of successful applicants who have taken at least one-year post-internship experience (**Figure 6**). The average number of years post-internship for successful applicants to the CST programme for the 2019 intake was 1.27 years. The successful applicant's experience can be broken down as follows:

- 25% of successful applicants came directly from internship
- 75% had one or more years post-internship experience broken down as follows:
    - 37% had one year experience post-internship
    - 17% had two years post-internship
    - With the remaining 21% having 3 or 4 years of post-internship experience.

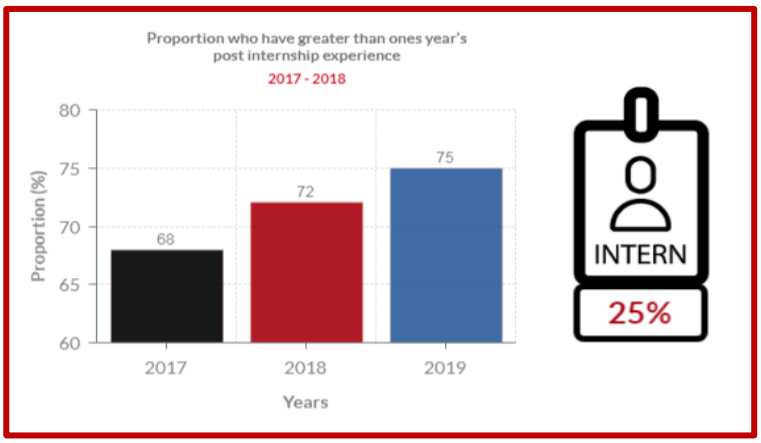

Figure 6 *Post internship experience of successful CST applicants*

Undergraduate Degree type.

Of the successful applications received in 2019, 65% came from applicants who were CAO direct entries to Irish Medical schools. This year 30% of successful applications came from Graduate Entry Medical Graduates but we have seen an increasing trend over the past three years in relation to the number of successful applicants coming from Graduate Entry Medicine (**Figure 7**). The remaining successful applicants were from international applicants (3%) and CAO mature entrants (2%).

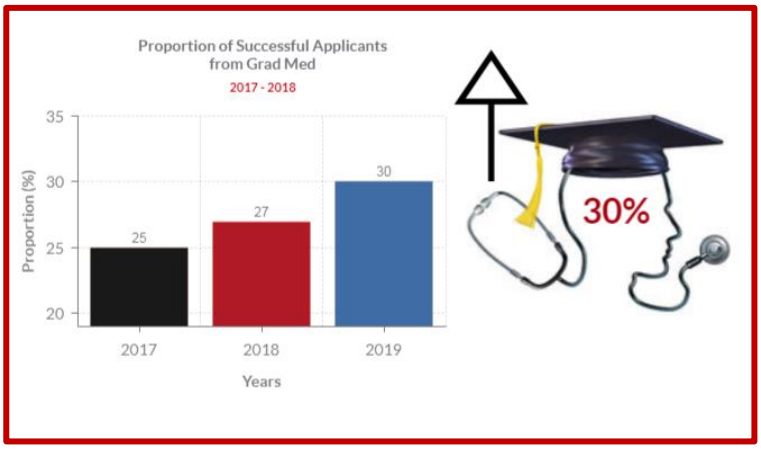

Figure 7 *Proportion of Successful Applicants from GEM*

Gender

Since RCSI published **"Progress: Promoting Gender Equality in Surgery"** the number of successful female applicants to surgical training continues to grow. In 2017, 25% of successful applicants were female but this has grown to 40% in 2019 (**Figure 8**). The PROGRESS report was published to clearly outline RCSI commitment to advance the career opportunities of our female surgical staff. Since then, RCSI received a Bronze Athena Swan award in October 2018 and have made tangible gains in promoting gender equality including, greater clarity regarding training rotas, support for less than full-time training and return to work following a period of extended leave.

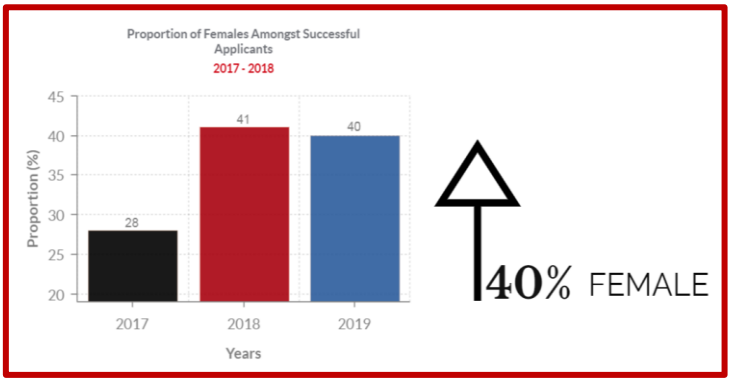

***Figure 8** Proportion of successful female applicants to CST*

Undergraduate Centile Scores

Undergraduate centile score continues to be one of the biggest discriminators between successful and unsuccessful applicants to the CST programme. In 2019, 22% of successful applicants were in the top 90-100% of their undergraduate class, 27% were in the 70-89% group, 39% were in the 40-69% group.

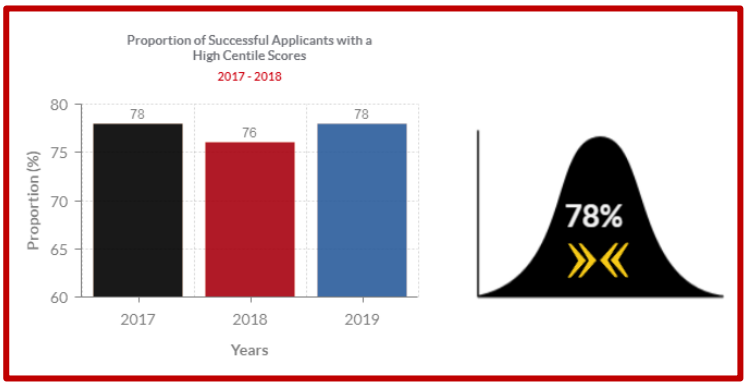

Figure 9 Proportion of applicant with High Centile score

MRCS Examinations

Since 2017 we have seen an increase in the number of applicants who have sat Part A of the MRCS examination. This has increased from 21.67% in 2017 to 43.02 in 2019 (see **Figure** 10a below). The reason for this unclear, but since 2018, 10% marks for progression to ST3 have been awarded for performance in MRCS Part B and one of the biggest elements in 2017 and 2018 preventing CST trainees from being eligible to attend the ST3 interviews was that they had not completed all elements of the MRCS exams before the ST3 interviews.

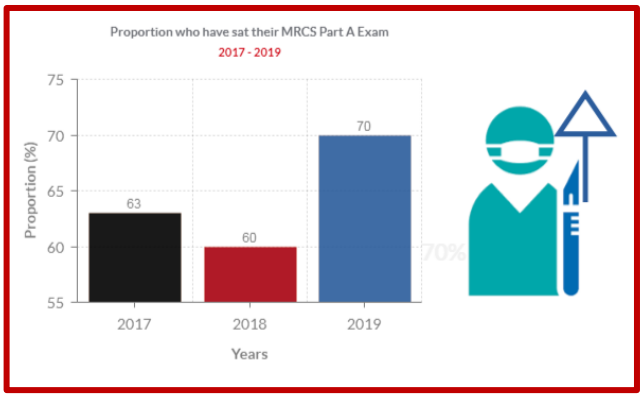

Figure 10a CST applicants with MRCS part A

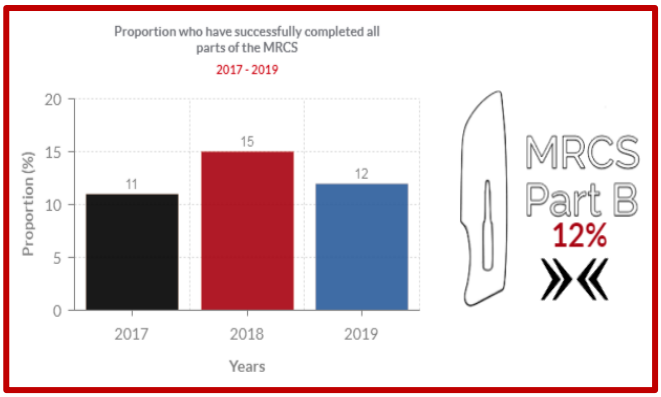

Figure 10b CST applicants with MRCS part B

In 2019 the proportion of successful applicants to CST who successfully completed all parts of their MRCS was 12% (or 7 applicants). In the past three years, there has been little variation in these figures (see **Figure 10b** above) with the majority of applicants waiting until they commence the programme before they complete part B.

Section 4 - Specialty Surgical Training

After Core training, doctors who are successful in the ST3 Progression Assessment can commence Specialist Training. The specialist training programme provides structured, supervised clinical training in Specialist Registrar (SpR) posts. Trainees rotate through pre-arranged posts in their chosen specialty every twelve months

- **Intermediate Stage I (ST3-4):** During the Intermediate stage, trainees will learn the basic concepts and start to develop decision making, clinical and technical skills in Elective and Emergency Surgery in their chosen specialty.
- **Intermediate Stage II (ST5-6)** Training in Elective and Emergency Surgery will be continued throughout ST5/6, but trainees will start to develop more advanced skills in the areas of Elective and Emergency Surgery Training.
- **Final Stage II (ST7-8)** During the final stages of training, trainee sub specialises and gain competencies in one of the other special interest areas of their chosen specialty. During this stage trainees also must complete their Fellowship examinations.

There are a limited number of places in specialty programmes and therefore progression from ST2 to ST3 is a competitive process. Progression is based on clearly defined performance metrics during CST as well as an ST3 specialty selection interview. Trainees applying through the Equivalent Standards Route will be assessed on adjusted performance metrics based on their experience post-core surgical training. The details for specialty selection are illustrated in Figures 11 and 12 below, which provide an overview of the process and detailed information on selection components both a pre-interview and interview stages. More details on selection and progression can be found on the RCSI Surgical Training website https://www.rcsi.com/surgery/training/surgery.

Figure 11 Selection components for specialty training

4.1 Progression Ratios based on 2013 CST Intake and 2015 ST3 Intake

Progression from ST2 to ST3 (Specialist Training) is a competitive process and is based on clearly defined performance metrics during CST and an ST3 specialty selection interview. Figure 12 below provides progression metrics from CST Application to entry to Specialty training at ST3 for the most recent group to complete CST (2017 CST intake) and includes both pathway and ESR trainees.

In the first column we can see that out of the 63 ST1 trainees all 63 were appointed to a specialty in ST2 and 95% were successful in getting their first choice preference.

From the second column, we see that General surgery was the most popular specialty to be preference with 27% of trainees preferencing it, Trauma and Orthopaedics were the second most popular at 21%.

In the third column is presented data on the CSTs who applied to progress to ST3 broken down by specialty. As an example; if we take applicants to Urology we can see that out of eight pathway trainees seven applied for specialty training (a ratio of 1:0.9). Of these seven trainees, three were successfully appointed which equates to a ratio of 3:7 or 43%.

Finally in the fourth column is presented the data on those from the CST intake in 2017 and ESR candidates that were appointed to ST3. Of the 51 CST applicants, 32 (62%) were appointed to ST3 with 7 of the 22 ESR candidates (32%) being appointed.

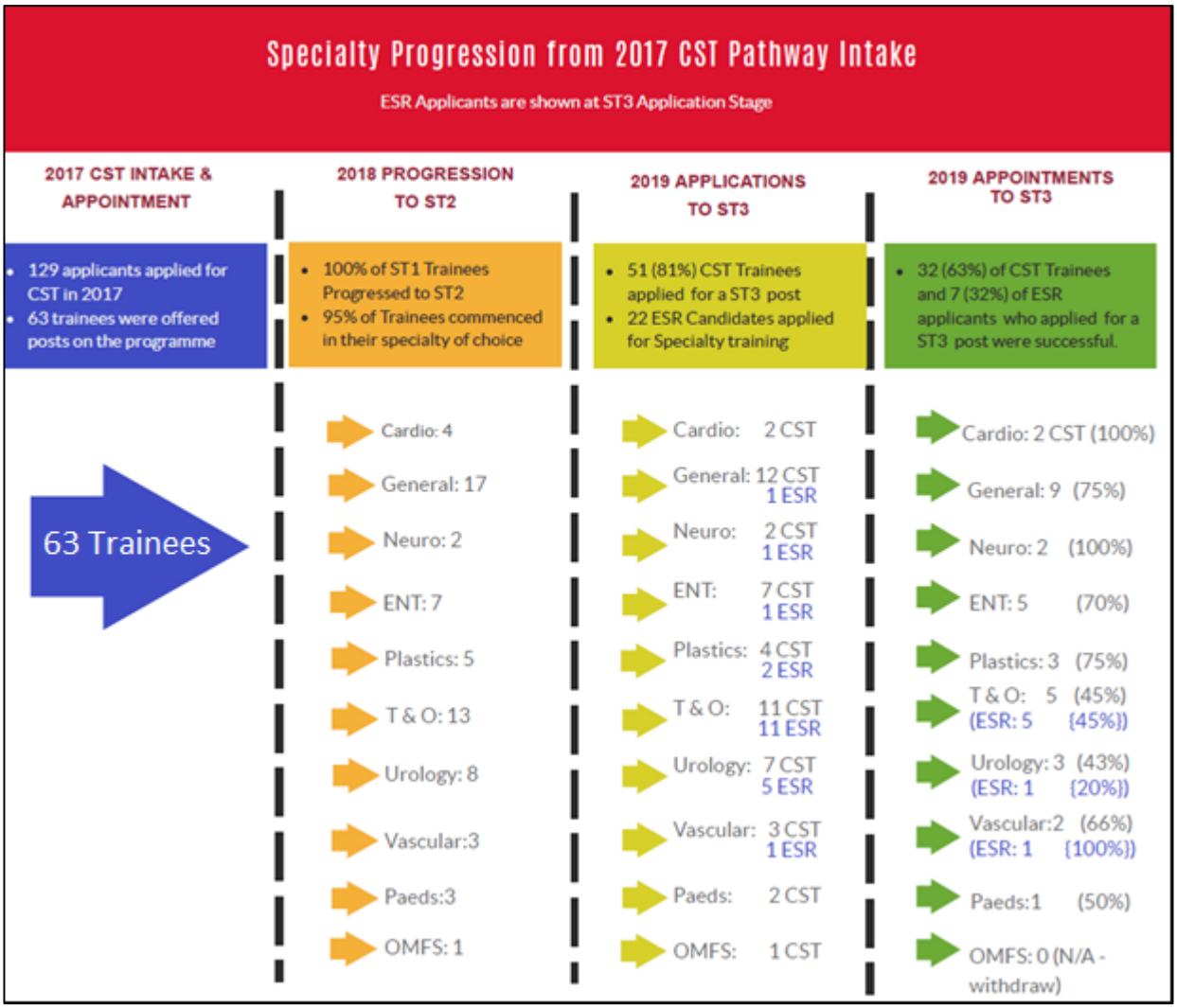

Figure 12 Progression Metrics from CST Application to entry to Specialty training at ST3

4.2 Demographics and Selection Component Data for Specialty Surgical Trainees

In analysing the data from the 2019 Specialty Training (ST3) intake we have identified some demographics and performance components that differentiate candidates and their performance in the overall selection process.
The main components we have analysed are:

Entry Route

In 2019 RCSI introduced a secondary entry route to Specialty training via the Equivalent Standards Route (ESR). **The ESR route gives those who have completed a structured training programme which is equivalent to the RCSI** Core Surgical Training the opportunity to be assessed and compete for a position on the various Specialty Training Programmes and for those holding a CST Cert. to reapply for Specialty Training. For the 2019 intake, 82% of successful applicants came directly from the RCSI run through programme with the remaining 18% coming from the ESR route.

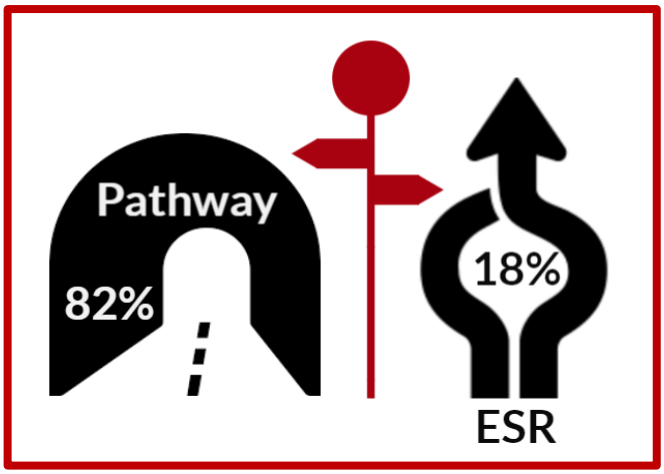

Figure 13 Entry route to specialty training

Gender Breakdown

The gender breakdown of successful applicants to Specialty Training ST3 for the 2019 intake is very much similar to that of the CST intake with 39% of successful applicants being female.

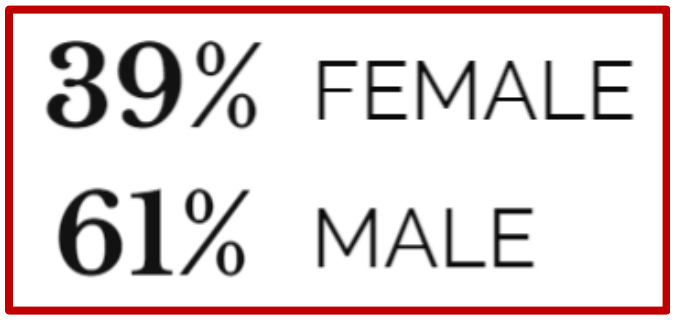

Figure 14 Gender breakdown for 2019 intake

Mean Age

The mean age of successful applicants to ST3 for the 2019 intake is 29.4 years of age, this is in align with the 2018 and 2017 intakes which had mean ages of 29.7 and 29.6 respectively.

Figure 15 Mean age of successful applicants

Academic Performance

In 2019 61% of successful applicants had a Postgraduate degree or diploma that was relevant to surgery or medicine. In relation to the type of degree or diploma, 43% of successful applicants had completed a Postgraduate degree by Thesis (PhD, MD, MCh.) with the remaining 18% completing other forms of postgraduate degrees or diplomas (Taught Modular MCh, M.Sc., M.Ed., MBA).

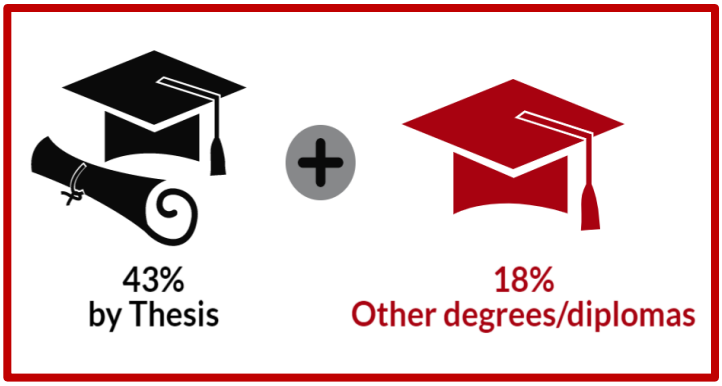

Figure 16 Academic performance of successful applicants

Scientific Publications

In 2019, 80% of successful applicants had published one or more peer-reviewed scientific papers as first or senior author.

Figure 17 Scientific publications by successful applicants

Scientific Presentations

The majority of successful candidates (94%) in 2019 had presented research they had undertaken at national or international scientific meetings as the first author. All these were oral and not poster presentations.

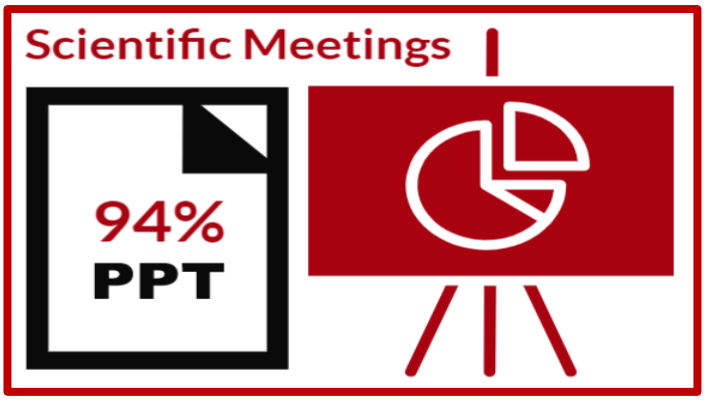

Figure 18 Scientific presentations by successful applicants