IN THE COURT OF APPEAL OF THE REPUBLIC OF SINGAPORE

[2021] SGCA 92

Civil Appeal No 208 of 2020

Between

Foo Chee Boon Edward

… *Appellant*

And

(1) Seto Wei Meng (Suing as the Administrator of the estate and on behalf of the dependants of Yeong Soek Mun, deceased)
(2) Seto Mun Chap (Suing as the Co-Administrator of the estate and on behalf of the dependants of Yeong Soek Mun, deceased)

… *Respondents*

In the matter of Suit No 553 of 2016

Between

(1) Seto Wei Meng (Suing as the Administrator of the estate and on behalf of the dependants of Yeong Soek Mun, deceased)
(2) Seto Mun Chap (Suing as the Co-Administrator of the estate and on behalf of the dependants of Yeong Soek Mun, deceased)

… *Plaintiffs*

And

(1) Foo Chee Boon Edward
(2) International Medical Group Holdings Pte Ltd
(3) TCS Medical Pte Ltd

… *Defendants*

And

Singapore General Hospital Pte Ltd

… *Third Party*

JUDGMENT

[Tort] — [Negligence] — [Breach of duty]
[Tort] — [Negligence] — [Causation]
[Damages] — [Assessment]
[Damages] — [Quantum]

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Foo Chee Boon Edward
v
Seto Wei Meng (suing as the administrator of the estate and on behalf of the dependants of Yeong Soek Mun, deceased) and another

[2021] SGCA 92

Court of Appeal — Civil Appeal No 208 of 2020
Sundaresh Menon CJ, Andrew Phang Boon Leong JCA and Quentin Loh JAD
29 June, 2 July 2021

28 September 2021 Judgment reserved.

Quentin Loh JAD (delivering the judgment of the court):

Introduction

1 The appellant, a doctor ("Dr Foo"), appeals against the decision of the judge below (the "Judge"), who found him liable in negligence in relation to the liposuction and fat transfer surgical procedure ("surgical procedures") carried out by him on 28 June 2013 on his patient, Ms Mandy Yeong ("the Deceased") and her death about 3 hours 46 minutes after the surgical procedures ended. Dr Foo also appeals against the consequent award of damages in the sum of $5,599,557.48 (plus coroner's inquiry ("CI") fees to be taxed if not agreed) together with interest and costs. The Judge's decision is reported in *Seto Wei Meng (suing as the administrator of the estate and on behalf of the dependants of Yeong Soek Mun, deceased) and another v Foo Chee Boon Edward and*

others (Singapore General Hospital Pte Ltd, third party) [2020] SGHC 260 (the "Judgment").

2 The first respondent is the Deceased's husband, Mr Seto Wei Meng ("Mr Seto"), while the second respondent is Mr Seto's father. Mr Seto and the second respondent are the administrator and co-administrator of the Deceased's estate respectively. The action was brought by the respondents on behalf of the estate of the Deceased as well as the Deceased's dependants. The dependants included the Deceased's parents (her father having died some three years four months after the Deceased's death); the two sons of the marriage (named Marcus and Melvin); and Mr Seto, who claimed for loss of support for household expenses, expenses related to the "Hilloft" condominium property which was jointly owned by the Deceased and Mr Seto ("Hilloft property"), and the loss of car expenses. Mr Seto also brought a loss of inheritance claim under s 22(1A) of the Civil Law Act (Cap 43, 1999 Rev Ed) ("CLA").

3 The Deceased was 44 years of age when she died. At the time of her death, she was the Head of Regional Market Development at Roche Diagnostics Asia Pacific Pte Ltd ("Roche"), where she had worked for the past 20 years. Her performance appraisals show that she was a valued officer of the company.

4 Dr Foo is a general and vascular surgeon in private practice. The surgical procedures were carried out at TCS Aesthetics Central Clinic ("the Clinic"), located at The Central, Eu Tong Sen Street. The second defendant was a company that held the licence to operate the Clinic and the third defendant was its collection agent. As both companies subsequently went into liquidation, the action against them has been stayed. Dr Foo had brought in the Singapore General Hospital ("SGH") as a third party but he discontinued this third party claim on the last day of the evidentiary hearings before the Judge.

5 In their statement of claim, the respondents allege that Dr Foo was negligent in three respects. First, Dr Foo failed to obtain the Deceased's informed consent and did not properly advise her on the risks and complications associated with the surgical procedures; furthermore, Dr Foo failed to explain that the surgical procedures would entail a higher risk of fat embolism, particularly as it involved a repeat procedure. Secondly, Dr Foo was negligent in carrying out the surgical procedures. Thirdly, Dr Foo was negligent in his post-operative management and care of the Deceased by, *inter alia*, failing to call for an ambulance in time. Dr Foo denied all three allegations.

6 It should be noted that, in relation to the first allegation of negligence, the Deceased had two previous cosmetic procedures (this is not in dispute). The first was liposuction performed by Dr Richard Teo on 29 July 2010. Dr Richard Teo was one of the two shareholders of the second defendant. Dr Richard Teo subsequently passed away. The second involved liposuction and fat transfer and was performed by Dr Foo on 18 July 2011. These procedures were carried out because the Deceased had "hollows" on both her medial and lateral thighs with surface irregularities which she hoped could be remedied by these procedures. However, the 2011 procedure was not entirely successful and there were resulting "dents" in the Deceased's inner medial thigh. The Deceased thus consulted Dr Foo again on 28 May 2013 and complained of residual hollows on both inner thighs. The suggestion was then to remove the bulge of fat on the front anterior abdomen and transfer that onto the dents of her upper medial thighs. We mention this because this repeat procedure on the thighs could be considered more difficult due to scar tissue caused by the earlier procedure on the thighs.

7 The following facts are not in dispute, save where indicated. Dr Foo carried out the surgical procedures from 12.00pm to 2.00pm on 28 June 2013 at

the Clinic. While the Judge found as a fact that the Deceased's oxygen saturation level was 100% at 2.00pm (see Judgment at [19]), the objective evidence based on the photograph of the vital signs monitor screen shows that the Deceased's oxygen saturation level was 96% at 2.00pm.[1] Very shortly after the surgical procedures were completed, the Deceased was in difficulty, variously described as coughing and making a gurgling sound and experiencing a shortness of breath.[2] It is common ground that, at 2.05pm, the Deceased's oxygen saturation level plunged to 72% (from 96% at 2.00pm when the surgical procedures ended). At 2.10pm, Dr Chow Yuen Ho ("Dr Chow") was called in to assist as the Deceased's oxygen saturation was not improving. Dr Chow came into the operating theatre at 2.10pm and the Deceased's oxygen saturation was still at 72%. Dr Chow deposes that he noticed the Deceased was already wearing a venti-mask attached to an oxygen tank; he changed that to an air-viva (bag and mask) as he felt it would be more beneficial as it had a better seal.[3] The photograph of the vital signs monitor screen shows that the Deceased's oxygen level was still at 72% at 2.20pm but Dr Foo's post mortem meeting notes said it was 86% at 2.20pm.[4] The photograph of the vital signs monitor screen also shows that the Deceased's oxygen saturation was at 76% at 2.30pm.[5] There is no recording or documentation of the Deceased's oxygen saturation after 2.30pm. Slightly after 2.30pm, Dr Shenthilkumar s/o Sritharan Naidu ("Dr Shenthilkumar") was called into the operating theatre for assistance by Dr Chow. Dr Shenthilkumar saw that the Deceased's oxygen saturation level was at 92%. Dr Shenthilkumar noted the Deceased was blabbering, *ie*, she could

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1 Record of Appeal ("ROA") Vol IV Part A 24.

2 See ROA Vol III Part E 260.

3 ROA Vol III Part A 15 at [41] and [43].

4 ROA Vol IV Part A 24; ROA Vol III Part E 260.

5 ROA Vol IV Part A 24.

not be understood. The Judge noted that Dr Shenthilkumar alleged that he had advised Dr Foo to call an ambulance (see Judgment at [20]), but the evidence indicates instead that Dr Shenthilkumar told Dr Chow to call for the ambulance while Dr Foo was in listening range; in addition, Dr Chow himself also told Dr Foo to call an ambulance.[6] Either way, the Judge rightly noted that unfortunately this sensible advice was either not heard or disregarded by Dr Foo.

8 The Judge found that the Deceased suffered a collapse in the cardiovascular sense at 2.45pm (see Judgment at [23]), though the respondents' case and the State Coroner's finding is that the Deceased "collapsed" earlier at 2.30pm. We see no reason to disturb the Judge's finding. Dr Foo called for the ambulance at 2.53pm. The ambulance arrived at the Clinic in just four minutes and its crew were attending to the Deceased by 3.10pm. The Deceased was conveyed to the Accident and Emergency ("A&E") Department at SGH; the ambulance arrived there at 3.23pm. The Deceased passed away at about 5.46pm.

9 The Deceased's cause of death was pulmonary fat embolism ("PFE"), a condition where fat globules have entered a patient's blood vessels and obstruct or block the continuous blood flow within the blood vessels and/or cause inflammation of the blood vessels. The net result is an interruption to the blood bringing oxygen to the lungs thereby causing oxygen starvation to the body. The medical evidence shows that the blockage of the blood flow in the pulmonary vessels affects the heart which can lead to right-sided heart failure (see [33(e)] below). This happened to the Deceased, as found by the Judge, at 2.45pm.

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6 ROA Vol III Part I 147 at [8]; ROA Vol III Part M 206 lines 6–12.

Liability

10 The trial before the Judge took some 15 days. The doctors mentioned above gave evidence, as did Dr Lim Jia Hao ("Dr Lim") from the A&E department of SGH. There was expert medical evidence presented to the Judge and there were a number of issues that were hotly contested before the Judge.

11 One of the contested issues was the incidence of PFE in the surgical procedures carried out in this case. Whilst it is undisputed that PFE is a known risk in these surgical procedures, it is uncommon for it to cause symptomatic problems. According to the medical evidence, there are two forms of fat embolism syndrome ("FES"): a less serious form, known as non-fulminant FES, and a far more serious form known as fulminant FES ("FFES"), which "presents as acute cor pulmonale, respiratory failure and/or embolic phenomena leading to death within a few hours of injury".[7] The Deceased died from the latter, FFES. The survival rate from FFES was also hotly contested. Another hotly contested issue and finding by the Judge was the cause of the Deceased's FFES and whether Dr Foo had inadvertently introduced the fat globules directly into the Deceased's blood stream.

12 There were other contested issues. This included whether the Deceased was properly advised of the risks of the surgical procedures she was going to undergo and whether the Deceased signed the consent forms, which warned of the risks of the surgical procedures, before Dr Foo. Dr Foo alleges that he had advised the Deceased of these risks at the time she signed the consent forms in his presence. The Judge noted, *inter alia*, and we agree with him, that Dr Foo's notes of that consultation made no reference to any such advice, they barely

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[7] Appellant's core bundle ("ACB") Vol II p 97 (Associate Professor Lim Thiam Chye's report).

covered half a page and they concerned the surgical and medical fees.[8] As for Dr Foo's claim that he personally discussed the consent forms with the Deceased, although the Deceased's signature appears on them, Dr Foo's signature on the space provided for him does not (see Judgment at [10]).[9]

13 There was a lack of any record by Dr Foo on the surgical procedures he carried out, for example, whether he found scar tissue on the Deceased's thighs, the resistance to the advance of the canula or what pressure he had to use. The respondents on the other hand contest the Judge's finding that the Deceased, even if she had been properly advised of the risks, would have gone ahead anyway with the surgical procedures.

14 We do not find it necessary to go into all the details of the contested issues on liability for the purposes of this appeal as this appeal can be disposed of on one ground, *viz*, Dr Foo's negligence in delaying to call for an ambulance to bring the Deceased to a hospital which would have had all the support facilities and specialist doctors at hand to deal with the FFES of the Deceased.

15 We reject the contention by counsel for Dr Foo, Mr Narayanan Sreenivasan SC ("Mr Sreenivasan SC"), that, because what had occurred was FFES, the Deceased was doomed to die, even if Dr Foo had called for an ambulance at 2.05pm. This is not a conclusion anyone could draw from the evidence presented in this case as well as the expert medical evidence before the Judge. It is noteworthy that Dr Foo did not submit any specific data for FFES found in the medical literature to support his contention. On the contrary, as we shall point out below, the medical literature placed before the court even

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8 ACB Vol II pp 163–164.

9 ACB Vol II p 169.

included a case of FFES which, *with timely detection*, survived apparently without any ill effects (see [28] below).

16 The surgical procedures ended at 2.00pm. By 2.05pm, just five minutes later, the Deceased's oxygen saturation level had plummeted to 72%. The expert medical evidence is that normal oxygen saturation levels should be around 96% or 95%. In a medical context, even a drop to 92% is a matter of great concern; Associate Professor Lim Thiam Chye ("A/Prof Lim"), an expert called by the respondents, gave evidence, which was not contradicted by any of the other doctors who gave evidence, or challenged by Dr Foo, that such an event becomes a matter of great concern and everyone would crowd into the operating theatre to ascertain the cause of the drop.[10] Here, with the oxygen saturation at 72%, every alarm bell should have been sounding and we entirely agree with the medical experts who variously described this as the Deceased having "suffered something catastrophic" (A/Prof Lim); the respondents' other expert witness, Dr Boey Wah Keong ("Dr Boey"), who said it was a "critical situation"; and Dr Foo's own expert witness, Dr Nandakumar Ramasami ("Dr Ramasami"), said it was "of concern" and "significant".[11] The surgical procedures were carried out with the Deceased sedated but awake throughout the procedures, which ended at 2.00pm. At 2.05pm, she started coughing, exhibited a gurgling sound, obviously trying to say something but could not be understood. The word "babbling" was used by Dr Foo in his post mortem notes.[12]

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10 ROA Vol III Part K 23 lines 1–8 and 14–20.

11 ROA Vol III Part K 128 lines 5–6; ROA Vol III Part J 241 lines 16–18; ROA Vol III Part N 197 lines 4 and 7.

12 ROA Vol III Part E 260.

17 As noted above, Dr Chow was called in to assist at 2.10pm and the Deceased's oxygen saturation was still at 72%. Dr Chow himself said that he told Dr Foo to call an ambulance.[13] Dr Shenthilkumar, who was also called in by Dr Chow to assist, shortly after 2.30pm, says he told Dr Chow to call for the ambulance.[14] This was the clear evidence of the first two medical doctors who came into the operating theatre to assist Dr Foo shortly after the surgical procedures ended. Unfortunately, it was only at 2.53pm, some eight minutes *after* the Deceased suffered a cardiovascular collapse at 2.45pm, that Dr Foo called for the ambulance.

18 Dr Lim gave evidence, which was not seriously controverted, that by the time the Deceased arrived at the A&E department at SGH at about 3.23pm, she was in such a bad condition that using extracorporeal membrane oxygenation ("ECMO") would not have helped.[15] There was thus evidence to support the Judge's finding that the Deceased arrived at the A&E department of SGH too late to be saved.

19 We also agree with the Judge's finding below that Dr Foo was not *au fait* with that potential problem of FES, let alone FFES, and was unable to recognise what had occurred to the Deceased when her oxygen saturation level plummeted to 72% and she was coughing, making gurgling sounds and unable to articulate what was wrong. We concur with the Judge's finding that this accounted for the 48 minutes of frantic exploration by Dr Foo in the vain hope that her oxygen saturation levels would improve instead of calling for the ambulance despite being asked to do so by Dr Chow and Dr Shenthilkumar. The clear evidence of

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13 ROA Vol III Part M 206 lines 6–12.

14 ROA Vol III Part I 147 at [8].

15 ROA Vol III Part O 204–205.

A/Prof Lim and Dr Boey was that fat embolism had occurred and Dr Foo did not recognise this and never considered it a possibility. Even after the Deceased "collapsed" at 2.45pm, Dr Foo took another eight minutes before deciding to call for the ambulance.

20 Dr Foo contends that the appropriate time to have called the ambulance was 2.45pm and not any earlier because (a) there was medical equipment available and put to use at the Clinic to assist the Deceased, which distinguishes this from a collapse on a public road; (b) there were doctors at the Clinic; (c) reasonable time was needed to exclude the other probable diagnoses that require urgent attention; and (d) FES was extremely rare and FFES was much rarer.

Dr Foo's breach of duty

21 We state at the outset that none of Dr Foo's contentions have any substance or validity and must be soundly rejected. The expert medical evidence is unequivocal and consistent. First and foremost, all the doctors who gave evidence held the view or agreed that Dr Foo should have called for an ambulance immediately or very soon after the onset of the Deceased's symptoms. Significantly, the first two doctors called in to help with the emergency situation that had developed, Dr Chow and Dr Shenthilkumar, although coming into the operating room at different times, came to the same conclusion upon assessing the situation, *viz*, there was an immediate need to call an ambulance. Secondly, Dr Foo had no valid excuse to delay calling for an ambulance in those critical 48 minutes (2.05pm to 2.53pm). As the medical evidence shows, there was every reason to do so quickly and no reason to delay that call. Thirdly, it is our clear conclusion and our key finding that, once the Deceased exhibited the symptoms that she did at 2.05pm, because FES or FFES

was a live possibility (see [25] below), Dr Foo should have immediately called for an ambulance to get the Deceased to a tertiary hospital. The failure to call for an ambulance until 2.53pm was inexcusable.

22 The truth is that the possibility of FES or FFES did not occur to Dr Foo at all when the Deceased started exhibiting the symptoms described above at 2.05pm (see Judgment at [26]). That was the evidence of Dr Boey and that was the finding of the Judge after hearing and considering all the evidence; we are in complete agreement with the Judge on that finding of fact. In fact, from the medical literature adduced, the view, which we accept, is that "physicians should have a high index of suspicion for FES following liposuction" (Md Saon *et al*, "Pulmonary Fat Embolism Syndrome After Liposuction Surgery" (2019) Clinical Pulmonary Medicine Vol 26(1) at p 32 ("Pulmonary Fat Embolism Syndrome After Liposuction Surgery")).[16] This was also the view of the SGH cardiothoracic surgery registrar, Dr Soo Ing Xiang ("Dr Soo") who was on call when the Deceased arrived at SGH (see [33(e)] below). Dr Soo said that "fat embolism is something we do think of, especially during liposuction". Dr Foo was clearly in breach of his duty of care to the Deceased.

23 Dr Foo's submission that the Clinic had available medical equipment which was put to use is without any substance whatsoever. The specialist medical and resuscitative equipment, available medical expertise and facilities at a tertiary institution, like SGH, were unarguably superior compared to what was available at the Clinic; see Judgment at [33] which Dr Foo does not challenge in this appeal. To make comparisons with a collapse along a public road was a red herring. The fact is that the Clinic did not have the medical equipment and facilities that SGH had, *eg*, the ECMO. We have referred to

16 ROA Vol IV Part B 71.

Dr Chow's affidavit of evidence-in-chief ("AEIC") at [7] above which refers to the use of a venti-mask and later an air-viva (bag mask and valve). Dr Chow and Dr Shenthilkumar, who had been called in to help Dr Foo at different junctures, both asked Dr Foo to call an ambulance. The reason for this is self-evident. They certainly did not believe the medical equipment and facilities in the Clinic were adequate to cope with the difficulties the Deceased was experiencing. Dr Chow also deposed to the ambulance crew changing the Deceased's mask with a "laryngeal mask, intubating [the Deceased]".[17] By implication, the Clinic did not possess a laryngeal mask or Dr Chow or Dr Shenthilkumar would have used it. Further, SGH, the largest hospital in Singapore, was not all that far away. Neither Dr Chow nor Dr Shenthilkumar needed a "reasonable" time of some 45 minutes to exclude other diagnoses that would have required more urgent attention. The undeniable fact remains that the Deceased was suffering from FES or FFES and Dr Foo did not recognise nor consider that a possibility. This is indeed ironic when his printed consent form, which he claims he went through with the Deceased, mentions both FES and FFES.

24 Dr Foo also cannot claim that the measures taken by him or his fellow doctors did alleviate the Deceased's oxygen saturation levels, and that hence there was no immediate need to call for the ambulance. Even if it were true that the oxygen saturation level did reach 86% and 92% at some points in time, this did not assist Dr Foo's case for two reasons. First, even 92% would be a level of great concern, as mentioned at [16] above. Secondly, and more importantly, as A/Prof Lim testified, even if the oxygen saturation level goes up, if the

17 ROA Vol III Part A 17 at [51].

underlying cause or problem is not resolved, it can drop again.[18] Dr Boey similarly said that "it's prudent to call for help because you don't know how far the deterioration will go on".[19] It is self-evident, as the Judge rightly found (see Judgment at [24]), that there was nothing to stop Dr Foo from calling for the ambulance whilst simultaneously trying to diagnose the problem. If Dr Foo was indeed cognisant of the potential possibility of FES, as he attempts to submit, then it is even more inexcusable for Dr Foo not to have called the ambulance at 2.05pm or shortly thereafter. That certainly was the most obvious action called for in the evidence of Dr Chow, at 2.05pm and later Dr Shenthilkumar when he came into the operating theatre shortly after 2.30pm.

Causation

25 Dr Foo denies causation in the death of the Deceased. On his submission, once the Deceased suffered from FFES, the Deceased was doomed anyway, even if the ambulance was called at 2.05pm. We categorically reject this submission. We digress to make a point here. It is normally incumbent on the plaintiff to prove causation and this may often not be difficult or even contested. But here it is Dr Foo who mounts an affirmative case that, even if he was in breach of his duty as we have found, there would be no causation because she was suffering from FFES. In short, it is his affirmative case that a patient with FFES was bound to die. This leads to two points. First, there was evidence before the Judge that FFES is a very rare occurrence and it happens when fat is injected into the vein. Secondly, a properly conducted liposuction procedure should not result in fat being injected into the veins and if it had happened here, we would have been prepared to find that the most plausible explanation, and

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18 ROA Vol III Part K 33 lines 12–14; Respondents' supplementary core bundle ("RSCB") 115 lines 8–15.

19 ROA Vol III Part J 252 lines 16 –19.

certainly on a balance of probabilities, was that Dr Foo had negligently injected fat directly into the Deceased's vein. Mr Sreenivasan SC conceded, correctly in our view, that, if the cause of the Deceased's FFES was Dr Foo's negligence in injecting fat directly into her veins, then there was no break in the chain of causation between that act and her death. But leaving this to one side, the evidence simply did not support Dr Foo's contention that once the Deceased had FFES, however it was caused, she was doomed to die and that there was absolutely nothing that could be done to save her. We reiterate that it is incumbent on Dr Foo to make good this assertion because it is his positive case that this was so. In truth it is not supported by the expert and medical evidence, which is that FFES is *not* necessarily fatal. Fatality usually occurs when the doctor performing the liposuction and/or fat transfer fails to recognise that FES or FFES has occurred and there is undue delay in getting the patient to a hospital which would have the necessary equipment to help the patient recover. As noted above, it is telling that the respondents' trial closing submissions made the point that Dr Foo was unable to produce any medical literature with data for FFES to support his contention that the onset of FFES meant death was inevitable.[20]

26 We start by pointing out that Dr Foo's own expert witness, Dr Ramasami, admitted that an earlier arrival at the hospital would have made a difference:[21]

> MS KUAH: ... Dr Nanda, it would have made a difference to the patient if she had arrived at the hospital earlier for treatment, correct? I say this because I look at page 47 of your affidavit at paragraph 79.
>
> A: Right.
>
> Q: You say:

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20 ROA Vol III Part P 175 at [156].

21 RSCB 129 lines 7–10; RSCB 128 lines 1–18.

> '***As fat embolism is potentially reversible with full circulatory and respiratory support*** …'
>
> COURT: Just put your question to him. What is your question?
>
> MS KUAH: Would you agree this means that ***if earlier access to full circulatory and respiratory support had been available*** to [the Deceased], ***it would have made a difference to the outcome?*** Agreed?
>
> A: ***Of course, yes***.
>
> [emphasis added in bold italics]

27 When Dr Ramasami was cross-examined by Ms Mak Wei Munn, counsel for SGH, and was referred to the Deceased's blood pH level of 6.837 and lactate reading of 16.4 taken at 3.58pm, whilst agreeing with counsel that these levels were "incompatible with life" and that they confirmed "severe hypoxaemia",[22] he stated that these were venous, not arterial samples, and that such levels could change very quickly; he stated:[23]

> … whether the ECMO, or any sort of support for the lungs happened much, much earlier, or even 10-15 minutes earlier, the numbers would be entirely different.

28 Dr Foo's own expert, Dr Sung Ki-Su ("Dr Sung"), adduced evidence of an article – Seong Wook Byeon, Tae Hyun Ban & Chin Kook Rhee, "A Case of *Acute Fulminant Fat Embolism Syndrome After Liposuction Surgery*" (2015) Tuberc Respir Dis 78 at p 423[24] [emphasis added] – which provided an account of a patient who survived FFES. The article reports on the case of a 21-year-old Asian college student who underwent elective liposuction surgery under general anaesthesia. He "presented with symptoms" and was intubated and put on oxygen. One hour after extubation, he became breathless and hypoxia worsened

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22 ROA Vol III Part O 59 lines 7–9.

23 ROA Vol III Part O 60 lines 7–10.

24 ROA Vol IV Part A 237.

with an oxygen saturation level of 50%. He was transferred to an adjacent hospital's accident and emergency centre and was intubated and put on mechanical ventilation. When he was admitted to the hospital of the authors of the article, his oxygen saturation level was 76%. He was intubated and oxygen was supplied by Ambu bagging and supportive care with mechanical ventilation and, *three* days later, his medical condition had improved. He was successfully weaned off the ventilator on *day six* and was discharged *fourteen* days after admission. The authors state that clinicians should distinguish between acute FFES and other FES. Acute FFES occurs during the first 24 hours and is attributed to massive mechanical blockage pulmonary vasculature by the fat emboli. Critically:[25]

> … With its clinically rapid progression, the patient demonstrated symptoms of multiple organ failure (involving the respiratory, cardiovascular, and central nervous systems) but fully recovered. … ***clinicians should consider the possibility of FES in the post-operative period of liposuction surgery***. [emphasis added in bold italics]

29 Dr Foo, unfairly in our view, seized upon a remark made by A/Prof Lim during cross-examination that the mortality rate of FFES is close to 100% to support his submission. First, A/Prof Lim went on immediately to explain that the statistics he had given had to be viewed in context. Pulmonary embolism from liposuction occurred quite frequently but if one took a select group who had injuries due to liposuction in large tertiary referral centres, then that would report death rates of close to 20%. However, if one took statistics from all the cases in the United States, which had close to 300,000 cases per year, then that figure was only about 1% to 5% depending on which paper one looked at. Dr Boey's testimony was that FFES was "so rare that we don't get enough data

[25] ROA Vol IV Part A 240.

on it."[26] Secondly, this completely ignores the totality of A/Prof Lim's evidence. A/Prof Lim testified clearly that the drop in the appellant's oxygen saturation level to 72% at 2.05pm ought to have triggered an immediate call for an ambulance:[27]

> Q: Ultimately, prof, what we're hoping that you can assist the court in is to determine, in your professional opinion, based on all this information, at what point do you feel the 1st defendant should have escalated the matter and called for an ambulance? So ultimately that's the issue that you are being asked to assist the court on.
>
> So quite apart from whether it's based on an actual diagnosis of fat embolism, I'm only going to ask you in terms of when you expect the doctor to realise 'I must call the ambulance this patient needs to be in hospital'. Can you tell us, to the best of your ability, when you think that time arose in this case?
>
> A: *At the time when they recorded the SpO2 level, the oxygen level at 72, which is 1405.*
>
> Q: Okay.
>
> A: I would say that *the patient probably has suffered something catastrophic at that time.* You can do certain manoeuvres to improve the condition, but *in the meantime you should actually get help as quickly as possible.*
>
> *If the advanced help to keep the patient alive is not available in the clinic, you must trigger the ability to actually transfer this patient.*
>
> [emphasis added]

30 Furthermore, in re-examination, A/Prof Lim clarified that FFES would not necessarily be fatal with early treatment:[28]

> Q: Just a moment ago you talked about the fact that for fulminant form of fat embolism, if you get to the point of

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[26] ROA Vol III Part J 256 lines 2–3.

[27] ROA Vol III Part K 127 line 14–128 line 11.

[28] ROA Vol III Part K 127 line 21–130 line 18.

> catastrophic decompensation, the mortality is extremely high, almost 100 per cent?
>
> A: Correct.
>
> Q: You also said something about the need for early recognition and intervention. Okay?
>
> A: Yes.
>
> Q: Since it is your opinion that the intervention was indicated, as you just said, at 1405, can you tell the court if the recognition and the escalation of care was done at that time, what effect would that have had to the outcome in this case?
>
> A: *If they had managed to escalate this and the patient was transferred to a tertiary facility capable of resuscitating the patient, one, keeping the patient alive on some kind of artificial ventilation and perhaps circulation, the chances are for a young patient they may be able to get a recovery*. The recovery, however, may not be complete because if the brain has suffered oxygen deprivation for a significant amount of time, you will find that some of the mental capabilities are lost.
>
> Q: On this issue, could I ask you whether it would be material to ensure that the patient reaches a facility with all those resources that you just mentioned before an actual cardiac arrest. Does that help in any way?
>
> A: *Depending on the severity of the catastrophic event, yes, it would help if she is there.*
>
> [emphasis added]

31 It is evident from the foregoing extract of A/Prof Lim's evidence that, from the moment the Deceased experienced the "catastrophic" event at 2.05pm (because her oxygen saturation levels fell to 72%), the Deceased should have been sent to the hospital and that that "would [have] help[ed]". It is thus clear that A/Prof Lim did not hold the view that the Deceased was doomed because it was FFES; otherwise there would have been no point rushing the patient to hospital.

32 The foregoing testimony is further reinforced by the following explanation by A/Prof Lim, which we alluded to earlier at [16] above:[29]

> A: … If anybody collapses from any cardiovascular problems, or cardiovascularity problems, we activate a code blue so that a whole team comes down to do the resuscitation. The activation is very quick because you have that 2.5 minutes narrow window.
>
> …
>
> COURT: Just a minute. Would you regard what has happened at 1405 to be a code-blue situation?
>
> A: Yes. That's correct. In fact, when we do the monitoring of our patients in the operating theatre, *if the oxygenation drops below 96 per cent, we become very concerned*. When it drops below 96 per cent, everybody crowds into the theatre to see what is happening.
>
> [emphasis added]

33 It is also clear from the totality of the evidence that the Judge was also right to find that FFES is a retrospective diagnosis, so the fact that FFES itself is "almost always deadly" is beside the point. The significance of a "retrospective" diagnosis is that, if a patient with FES or FFES is given prompt treatment, and the patient recovers, the case would then typically not be characterised or labelled as FFES.

(a) The fact that FFES is a retrospective diagnosis is clear from A/Prof Lim's testimony, who testified that it is not possible to contemporaneously "diagnose" a patient with FES or FFES at the time the patient begins to suffer from it:[30]

> A: That's right. That's correct. Can I just put a couple of other notes? *One is that one does not know if the patient has got fulminant fat embolism. One does not know – pulmonary*

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29 ROA Vol III Part K 23 lines 1–8 and 14–20.

30 ROA Vol III Part K 134 lines 12–24.

> *embolism by fat. One does not know. You cannot make a diagnosis of that.*
>
> COURT: So that brings me to the other – to tie up with the other point. So if this patient did not have fulminant fat embolism, then we cannot say if she was rushed to the hospital in time she would not recover?
>
> A: That's correct.
>
> COURT: I understand now. Thank you.
>
> A: *If you do not know what the diagnosis is, you must try everything possible to keep the patient alive.*
>
> [emphasis added]

(b) Dr Sriram Shankar, Dr Foo's witness, also testified to the same effect:[31]

> Q: Just one last question. What you have described about the point of doing ECMO and buying the patient time, would this be equally applicable to fulminant fat embolism. Would the patient in fulminant fat embolism also benefit from everything you have said?
>
> A: *You see, the word 'fulminant' is a very retrospective word, isn't it?*
>
> Q: Yes.
>
> A: You have fat embolism and if it kills you, you say it's fulminant.
>
> Q: Yes, agree. Yes.
>
> A: So as doctors, you just look at patients clinically at point to point and you look at the effects of your therapy on the patient and *if your effect of therapy is not giving you the desired result, you then change course.*
>
> [emphasis added]

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[31] ROA Vol III Part N 14 line 18–15 line 22.

(c) After A/Prof Lim clarified in re-examination that patients can survive FFES if they are promptly brought to a hospital (see [30] and [31] above) he went on to refer to the view of the anaesthetist, Dr Boey:[32]

> Q: On this same issue, another expert, Dr Boey Wah Keong, who is an anaesthetist, had said that if you can intubate early, you can possibly avert the cardiac arrest. Are you able to offer an opinion or not? Do you have any view on this?
>
> A: I think that his opinion is that *if you intubate early and hyperoxygenate the patient, the chances of this SpO2 level dropping down to anything that will cause brain damage* ***will be averted***.
>
> [emphasis added in italics and bold italics]

(d) Dr Lim, the doctor from SGH, similarly testified that:[33]

> A: So, yeah, I remember that because, you know, this is a patient that came to us at 3.25 and, you know, to hear that this patient arrested at 2.30 with a paramedic – with an ambulance being called at 2.50-something was a big point, really. Yeah, so I remember that exchange with the paramedics very clearly because I think both of us, the paramedic and I, were giving each other looks of dismay, really, yeah. I will leave that point.
>
> COURT: Why was it a big point?
>
> A: Pardon?
>
> COURT: Why was it a big point?
>
> A: *It's the fact that the patient arrested at 2.30 and the ambulance was only called at 2.50-something when there were healthcare providers at scene. All that added to a really long cardiac arrest downtime, which led to a very poor prognosis, really, overall. …*
>
> [emphasis added]

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32 ROA Vol III Part K 129–131.

33 ROA Vol III Part O 147 line 19–148 line 12.

(e) Dr Soo testified that fat embolism is something to be borne in mind, especially during liposuction,[34] and that, in FFES, a lot of fat molecules enter the pulmonary circulation, causing a lack of blood flow to the lungs, which also results in heart failure and, if "very severe", causes a "very severe inflammatory response" that leads to multi-organ failure.[35] Critically, Dr Soo gave evidence that there was a "total downtime of 1 hour from [the time the Deceased] collapse[d] at the clinic"[36] (though we note that it was actually longer than that as he saw the Deceased at about 4.10pm[37]), and he agreed that, if the "downtime" was too long, the damage to the patient would be too great and cannot be reversed even if ECMO were given.[38] Furthermore, there would also be no return to spontaneous circulation of the blood,[39] and there would be dependent venous stasis, *ie*, the blood had not circulated for a significant amount of time and the venous blood had actually pooled to the dependent portions (the back of the thighs as well as the back).[40] With those main factors and from what Dr Soo observed when he examined the Deceased, it was obvious that it was too late to do the ECMO.[41] Dr Soo's testimony makes it amply clear that Dr Foo had called the ambulance too late.

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34 ROA Vol III Part O 201 lines 2–3.

35 ROA Vol III Part O 202 lines 3–11.

36 ROA Vol III Part O 186 lines 24–25.

37 ROA Vol III Part O 197 line 11.

38 ROA Vol III Part O 187 lines 16–19.

39 ROA Vol III Part O 190 lines 11–15.

40 ROA Vol III Part O 189 line 8–190 line 6.

41 ROA Vol III Part O 187–191.

34 In addition, from the medical literature placed before the Judge, it is clear that early detection and speedy delivery of oxygen is critical. One article, "Pulmonary Fat Embolism Syndrome After Liposuction Surgery", referred to by Dr Foo's own witness, Dr Sriram Shankar, states at p 34:[42]

> Fat embolization syndrome is typically self-limiting and treated with supportive therapy with the use of positive airway pressure or mechanical ventilation, intravenous fluids, and vasopressors for hemodynamic support. *Most patients with supportive care will fully recover*, as evident in our patient. … *The most important factor in the prognosis of FES patients is early resuscitation and stabilization.* …
>
> … Although there currently exists no specific treatment plan for liposuction-induced FES, *early detection and immediate supportive therapy* with oxygen, positive airway pressure, mechanical ventilation, intravenous fluids, and vasopressors can significantly improve clinical outcomes.
>
> [emphasis added]

35 In another article, Colby A Cantu & Elizabeth N Pavlisko, "Liposuction-Induced Fat Embolism Syndrome: A Brief Review and Postmortem Diagnostic Approach" (2018) Arch Pathol Lab Med Vol 142 at p 47, referred to by Dr Foo's own expert witness, Dr Sung from South Korea, it is stated that:[43]

> … Thus, prevention, *early detection*, and *prompt supportive therapy are critical. Early diagnosis not only limits morbidity and mortality,* but also diminishes additional investigation cost burdens. Continuous positive airway pressure is usually the first-line treatment for respiratory insufficiency. This treatment generally fails quickly, and *swift transition to intubation with mechanical ventilation and positive end expiratory pressure should be provided.* …
>
> Fat embolism is a self-limiting disease. The overall mortality from FES after liposuction is approximately 10% to 15% and mortality correlates with severity of respiratory insufficiency. Although the duration of FES is difficult to predict, survival beyond initial presentation generally leads to full recovery.

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42 ROA Vol IV Part B 73.

43 ROA Vol IV Part A 247.

[emphasis added]

36 Therefore, the totality of the evidence referenced above shows that Dr Foo clearly breached his duty of care to the Deceased, did not recognise the symptoms of FES or FFES and wasted precious time by not calling for an ambulance earlier, despite Dr Chow and Dr Shenthilkumar telling him to do so. Dr Foo only called for an ambulance some 48 minutes after the onset of grave and severe symptoms at 2.05pm and some eight minutes *after* the Deceased had suffered a collapse in a cardiovascular sense in the Clinic.

37 There was no dissonance in the chorus of voices from the doctors who gave evidence that getting the Deceased to the hospital quickly would have made a difference. This makes no sense at all if, as Dr Foo contends, there was nothing that could possibly have saved the patient once she had FFES. In fact, the weight of the medical evidence is best summed up by Dr Foo's own expert, Dr Ramasami. As noted above, to the question if earlier access to full circulatory and respiratory support for the Deceased would have made a difference to the outcome, he unequivocally answered, "Of course, yes."[44]

38 It is clear from all the medical evidence before this Court that a patient who has FFES is *not* doomed; that patient is doomed if the surgeon carrying out the surgical procedures does not recognise that FES or FFES has occurred and does not react quickly to get that patient to a tertiary hospital which would have had the necessary equipment and specialist doctors on hand. Tragically, this was exactly what happened in this case.

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[44] RSCB 129 lines 7–10; RSCB 128 lines 1–18.

39 With all this weight of evidence, Dr Foo's attempt to deny causation is an exercise in futility. For the foregoing reasons, Dr Foo's appeal on liability is dismissed.

Quantum

40 We now turn to the appeal against the quantum of damages awarded by the Judge. We generally agree with the findings of fact and awards by the Judge save in three respects:

(a) first, whether income tax should be deducted from the gross income when considering claims based thereon;

(b) secondly, the value of the mortgage payments for the Hilloft property and whether this amounts to double counting; and

(c) thirdly, the award in respect of stock options.

Dr Foo also disputed the respondents' claim of fees for the CI.

41 We afforded the parties an opportunity to come to some agreement after the hearing. In the event, they managed to agree to some but not all of the items. Having heard the parties and considered their further submissions on quantum, we vary the Judge's award of damages as set out below.

Estate claim

42 First, for the estate claim, the Judge awarded the respondents the CI fees, to be taxed if not agreed. The Judge cited this Court's decision in *Zhu Xiu Chun (alias Myint Myint Kyi) v Rockwills Trustee Ltd (administrators of the estate of and on behalf of the dependants of Heng Ang Tee Franklin, deceased) and other appeals* [2016] 5 SLR 412 at [76] that CI fees are claimable as long as the

amount claimed is reasonable and proportionate. Mr Sreenivasan SC initially sought to challenge this. However, during the course of oral argument, Mr Sreenivasan SC conceded that the CI fees were payable by Dr Foo. The respondents proposed a sum of $26,000 for the CI fees, which Mr Sreenivasan SC found not to be unreasonable. We accordingly award $26,000 for the CI fees, in addition to the sum of $31,390.99 for the estate claim.

Dependency claim

43 For the dependency claim, the Judge applied the "traditional" method of calculation, as sought by the respondents: *Armstrong, Carol Ann (executrix of the estate of Peter Traynor, deceased, and on behalf of the dependents of Peter Traynor, deceased) v Quest Laboratories Pte Ltd and another and other appeals* [2020] 1 SLR 133 ("*Carol Ann Armstrong*") at [211]–[212]. He awarded the sum of $1,728,293.90 which comprised:

(a) $15,000 for bereavement (the sum fixed by s 21(4) of the CLA);

(b) $94,000 for the Deceased's parents' loss of support;

(c) $1,400,415.93 for Mr Seto's loss of support;

(d) $96,881.69 for Marcus's loss of support; and

(e) $121,996.28 for Melvin's loss of support.

The sum of $1,400,415.93 for Mr Seto's loss of support included Mr Seto's claim for loss of support for expenses related to the Hilloft property, which the Judge found were "reasonable" and sufficiently proven (Judgment at [56]). However, the Judge did not specify the sum awarded for Mr Seto's loss of support for the Hilloft property expenses.

44 With respect, we disagree with a large part of the Judge's findings and award of the payments in respect of the Hilloft property. A preliminary observation we make is that the details surrounding this property are incomplete. There is no information as to how title to the property was held as between Mr Seto and the Deceased or their respective contributions towards the purchase price and monthly mortgage repayments. Mr Seto's AEIC is very brief stating that he and the Deceased bought an "investment property" just before the Deceased's passing.[45] Mr Seto also deposes that the Deceased made "substantial contributions" to the Hilloft property mortgage payments and expenses, but without any further relevant details. From the documentary evidence, the purchase price was $2,638,000; a 30-year loan of $1,600,000 was taken out with a bank, there was also a $500,000 withdrawal from the Deceased's Central Provident Fund ("CPF") and the monthly repayment was about $5,174.83 per month.[46] In cross-examination, Mr Seto was only asked, and he confirmed, that they purchased an investment property at Jalan Dermawan and that there is an outstanding mortgage on it.[47] In Mr Seto's trial closing submissions,[48] it is stated that the Hilloft property was purchased in July 2012 and at the time of the Deceased's death there was still an outstanding loan of $1,562,473.27. Mr Seto submitted that he had the reasonable pecuniary expectation that the Deceased would have continued to pay $1,171,854.95 of the outstanding loan (*ie*, her 75% contribution towards paying off the loan on the basis of the ratio of her annual earnings of $420,000 relative to Mr Seto's $118,800). A 40% discount was then applied to this figure thus resulting in the claim of $703,112.97.

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45 ROA Vol III Part F 128 at [67].

46 ROA Vol III Part F 128 at [67]; ROA Vol III Part H 164–199 (Exhibit "SWM-17").

47 ROA Vol III Part I 191 lines 19–25.

48 ROA Vol III Part P 199 and 201 at [205] and [208].

45 Dr Foo's trial closing submissions focused on the fact that Mr Seto had not rented out the investment property to mitigate his loss.[49] There was little dispute over this item of claim by Dr Foo and the Judge found that there was no evidence that Mr Seto is renting or intends to rent out the Hilloft property (Judgment at [56]).

46 Before us, Ms Kuah Boon Theng SC ("Ms Kuah SC"), counsel for the respondents, informed us that, although this was an investment property, Mr Seto and the Deceased decided to use the Hilloft property as a recreational weekend home as it was a cluster housing project with full recreational facilities.

47 The Hilloft property expenses encompassed two aspects: (a) mortgage payments for the outstanding loan on the property; and (b) property-related expenses including (i) the condominium maintenance fees; (ii) property insurance; and (iii) property tax.

48 The mortgage instalment payments may superficially be seen as a "benefit" which Mr Seto might have received from the Deceased but for her demise. However, the key difference between the mortgage payments and other benefits claimed by Mr Seto is that these mortgage payments represent the use of the Deceased's income to acquire an *asset* – the Hilloft property – which Mr Seto will own at the end of the day. There would thus be an element of double counting in this case. The tortfeasor is asked to pay a sum representing the money the Deceased would have earned which is then used to purchase an asset, the full value of which would, at the end of the day, belong to Mr Seto. Put in another way, Mr Seto gets the full *value* of the property *in addition* to the cash sum of the mortgage payments. Mr Seto thus gets not only the *use* of the money

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[49] ROA Vol III Part Q 222 at [98] to [100].

but also the *value* of the money. Indeed, it is telling that the respondents have not cited a single case to show that mortgage instalment payments have been successfully claimed.

49 On the other hand, the property-related expenses stand on another footing and are claimable. Unlike the mortgage payments, which represent the use of the Deceased's income to acquire an *asset*, the sum for property-related expenses is indeed a *benefit*, *in addition to* the household expenses and car expenses claimed by Mr Seto, which Mr Seto would have received from the Deceased, if not for her demise. This lost benefit would not accrue to Mr Seto via any other way besides this dependency claim. Therefore, we agree with the respondents that these property-related expenses are claimable.

50 The parties have, since the oral hearing, agreed that the mortgage instalment payments amounted to a sum of $703,112.97, while a sum of $113,850 was for the property-related expenses. The parties have agreed, quite rightly in our view, that the sum of $703,112.97 for the mortgage payments should not be awarded. Accordingly, we reduce the damages awarded for Mr Seto's dependency claim by this amount. For the reasons set out above, we do not disturb the Judge's award of damages for the property-related expenses amounting to $113,850. We accordingly reduce the sum of Mr Seto's loss of support claim from $1,400,415.93 to $697,302.96.

Loss of inheritance claim

51 The respondents made a claim for loss of inheritance and the Judge awarded a total sum of $3,839,872.59, comprising $3,283,372.59 for loss of inheritance based on projected income and $556,500 for loss of inheritance in relation to stock options. The Judge applied an average annual salary increment

of about 5% until the age of 60, which would translate into an average annual income of $754,468.13 (Judgment at [60]).

52 The Judge found that an approximate figure of $90,000 per year would have been spent on the Deceased's annual expenses on her dependants. The Judge also applied the "presumption" in *Carol Ann Armstrong* at [212] that "a person in a household of four with two children would typically spend 25% of her income on personal expenses" (Judgment at [61]), which meant that the Deceased's average annual personal expenditure would have been $188,617.03 (25% of $754,468.13). As such, the Judge found that the appropriate multiplicand for the loss of inheritance based on the Deceased's projected income should be $475,851.10 ($754,468.13 minus $188,617.03 minus $90,000). The Judge applied a multiplier of 6.9 years ((67 minus 44) years with a discount of 70%), which gave rise to the total award of $3,283,372.59 ($475,851.10 x 6.9).

53 As for the stock options, due to the "limited evidence" available, the Judge was "hesitant" to find that the Deceased "would have continued to accumulate 1,200 stock options annually till the end of her working life", as claimed by the respondents. Thus, the Judge used a "more conservative and realistic estimate" of "1,000 stock options (valued at $92.75 each) per year for a total of about 20 years". The Judge applied a multiplier of 6 years (20 years with a discount of 70%). This gave rise to a total sum of $556,500 ($92.75 x 1000 x 6).

54 With respect, we find that the Judge had erred in both his analysis on the loss of inheritance from the projected income and the stock options.

Loss of projected income

55 First, the Judge had applied the Deceased's *pre-tax* income to determine the appropriate multiplicand for the loss of inheritance from projected income. The reason for doing so is not apparent from the Judgment, even though Dr Foo had submitted at the trial below that it should be the *post-tax* income that should be taken into consideration. Dr Foo unsurprisingly repeats this submission in this appeal.

56 The respondents do not dispute in this appeal that income tax should be taken into consideration. Rather, the respondents' submission is that the income tax which ought to be discounted had already been taken into consideration as part of the 25% discount which the Judge had applied for the Deceased's personal expenditure (see [52] above). We do not agree with the respondents' submission. It is neither apparent from the Judgment below nor the Judge's analysis that the Deceased's income tax was taken into account in his assessment.

57 It is settled law that claims based on loss of earnings must be net of income tax. The English case of *British Transport Commission v Gourley* [1956] AC 185 ("*Gourley*") settled this issue. The House of Lords explained that this was because "the tribunal should award the injured party such a sum of money *as will put him in the same position as he would have been in if he had not sustained the injuries*" [emphasis added] (per Earl Jowitt at 197). The plaintiff should have his damages assessed "upon the basis of what he has really lost", even if it became "necessary for the tribunal assessing damages to form an estimate of what the tax would have been if the money had been earned" (per Earl Jowitt at 197 and 203). The rule in *Gourley* applies when two conditions are satisfied: (a) the damages awarded are compensation for loss of a taxable

income or gain and not for loss of a capital asset; and (b) the damages themselves must not be taxable.

58 This Court has applied the principle in *Gourley* in Singapore: see *Raja's Commercial College v Gian Singh & Co Ltd* [1974–1976] SLR(R) 225; *Klerk-Elias Liza v K T Chan Clinic Pte Ltd* [1993] 1 SLR(R) 609; and *Teo Sing Keng and another v Sim Ban Kiat* [1994] 1 SLR(R) 340. Although none of these cases, strictly speaking, involved a loss of inheritance claim, there is no doubt that the same principle would apply. In *Carol Ann Armstrong*, which did involve a loss of inheritance claim, this Court and the High Court both considered the *post-tax* income of the deceased to assess the multiplicand for the loss of inheritance claim (though *Gourley* or its progeny were not cited).

59 Consequently, the Judge had erred in applying the pre-tax, rather than post-tax, projected income to calculate the multiplicand for the loss of inheritance claim. As the parties were unable to let us have the post-tax income figure at the oral hearing, we asked the parties to agree upon that figure and to revert. The parties have agreed that the applicable post-tax income for the loss of inheritance claim should be $625,335.14. Thus, the starting point of the determination of the multiplicand should be $625,335.14.

60 Unsurprisingly, despite the parties being asked to agree upon the figure of income tax to be deducted from the gross annual income, this brought forth further disagreements and submissions.

61 The respondents submit that, since it is the post-tax income that is being considered, the Deceased's expenditure on her dependants and on herself should be reduced accordingly. The respondents calculate this by applying the 25% discount (for the Deceased's personal expenditure) to the *post-tax income* (*ie*,

0.25 x $625,335.14 = $156,333.79), and by reducing the Deceased's expenditure on the dependants ($90,000) by deducting the mortgage payments from this (*ie*, $90,000 minus $50,950.22 = $39,049.78). Thus, the respondents' calculation of the revised multiplicand for the loss of inheritance claim is $429,951.57 ($625,335.14 minus $156,333.79 minus $39,049.78).

62 Dr Foo disagrees and submits that the 25% discount for the Deceased's personal expenditure should be applied to the *pre-tax income* (*ie*, 0.25 x $754,468.13 = $188,617.03, which is the Judge's finding), and that the Judge's sum of $90,000 for the Deceased's expenditure on the dependants should not be reduced for the mortgage payments, as it "is quite clear that the $90,000 figure did not include the Hilloft expenses". Thus, on Dr Foo's calculation, the multiplicand for the loss of inheritance claim should be $346,718.11 ($625,335.14 minus $188,617.03 minus $90,000).

63 We agree with the respondents that the 25% discount for the Deceased's personal expenditure should be applied to the *post-tax income* of $625,335.14, rather than the pre-tax income of $754,468.13. This was also the implicit position taken in *Carol Ann Armstrong* at [212], as this Court held in that case that the 25% discount for personal expenditure is to be deducted from "the deceased's *net salary*" [emphasis added].

64 As for the sum of $90,000 for the Deceased's expenditure on her dependants, it is not clear from the Judgment whether this sum included the mortgage payments. As noted, Dr Foo says it does not. The respondents say that their figures stated in their trial closing submissions did include the mortgage payments in the $90,000. It appears that the Judge had essentially adopted the respondents' figures at trial. However, the Judge reduced the respondents'

figure of $111,427.79 per year to $90,000 per year. At [61] of the Judgment, the Judge said the former sum should be reduced because:

> … [the Deceased's] expenditure on household expenses, property-related expenses, and her parents' and sons' expenses would not have been [as] extensive as the plaintiffs claim. In my view, an approximate figure of about $90,000 per year would be appropriate. …

65 It was incumbent on the respondents to show that the Judge had included the mortgage payments in the $90,000. As they have not been able to establish this, we shall accordingly not disturb this finding.

66 This means that the revised multiplicand for the loss of inheritance claim should be $379,001.36 ($625,335.14 minus (0.25 x $625,335.14) minus $90,000). The revised loss of inheritance claim for loss of projected income, based on the multiplier of 6.9 (see [52] above), would thus be $2,615,109.35 ($379,001.36 x 6.9) instead of $3,283,372.59.

67 For completeness, we pause at this juncture to note a related point that was not raised by the parties, either in this appeal or in the trial below. We noted there was no reference to the Deceased's CPF, especially the employer's contributions, in relation to the dependants' claims and the loss of inheritance claim. There might have been some special reason for this omission that is not readily apparent to us. We need say no more in the circumstances except to note that there have been cases where CPF contributions have been taken into account for dependency claims.

(a) In *Singapore Bus Service (1978) Ltd v Lim Soon Yong* [1983–1984] SLR(R) 159 ("*Lim Soon Yong*"), this Court held that CPF contributions formed part of a dependency claim. This was upheld by the Privy Council.

(b) In *Lee Wee Hiong and another (administrators of the estate of Lee Liak Meng, deceased) and others v Koh Ah Sai Victor and others* [1989] 2 SLR(R) 486 ("*Lee Wee Hiong*") at [13], which involved a car accident that caused death and personal injuries, Yong Pung How CJ applied *Lim Soon Yong* and held that the loss attributable to the cessation of contributions to the CPF can form part of a dependency claim.

(c) In *Balanalagirisamy Gowri Rajeswari and another (administrators of the estate of Radhakrishnan Hari Babu, deceased) v Wong Si Wah* [2009] 1 SLR(R) 819 at [31], Andrew Ang J (as he then was) applied *Lee Wee Hiong* and also held that CPF contributions may form part of a dependency claim.

Loss of stock options

68 With respect, we take issue with the Judge's award of damages for the loss of stock options. According to Mr Seto's AEIC, in addition to the Deceased's salary and bonus, there were various long-term stock options called "Roche Connect" and "Roche Long Term" awarded to the Deceased by Roche as a further incentive to work hard and invest in the company.[50] Dr Foo submits that the Judge erred in awarding a sum of $556,500 for the loss of inheritance on account of the stock options, as no evidence was led on the stock options the Deceased would have received or the criteria for receiving the same.

69 There is some documentary evidence adduced by the respondents at the trial below which shows the Deceased's accumulation of stock options awarded to her by Roche as part of her remuneration package, and the consequent accumulation of value of the said options. However, the Judge himself rightly

[50] ROA Vol III Part F 122 at [53].

observed that there was "limited" evidence available (Judgment at [62]). The Deceased had been issued 1,212 options in 2008 and 1,347 options in 2009.[51] By 2013, she had accumulated 11,718 options. However, the Deceased was not issued any new stock options from 2010 to 2013.[52] As Dr Foo submits, there was no evidence on *how* the stock options were to be issued by the employer and no evidence as to its terms or on how the value of the stock options are to be determined.

70 Therefore, the Judge's basis for applying a multiplicand of 1000 stock options *per year* is, with respect, not warranted. This is an inference which cannot be drawn from the evidence because there is no clear pattern that new stock options *would* be issued *every year*. Since there is no evidence on how the stock options were issued by the employer, we agree with Dr Foo that this claim should be disallowed. Consequently, we set aside the Judge's award of $556,500 for loss of inheritance in relation to the stock options. The total sum of the loss of inheritance claim would thus be $2,615,109.35 (for loss of projected income) instead of $3,839,872.59.

Conclusion

71 In summary, our decision is as follows:

(a) Dr Foo's appeal on liability is dismissed; and

(b) we allow the appeal on quantum of damages in part as follows:

(i) we award the sum of $26,000 to the respondents in respect of CI fees;

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51 RSCB 35 and 42.

52 RSCB 32–107; ROA Vol III Part F 123.

(ii) the damages awarded for the dependency claim is reduced from $1,728,293.90 to $1,025,180.93; and

(iii) the damages awarded for the loss of inheritance claim is reduced from $3,839,872.59 to $2,615,109.35.

72 For ease of reference, we provide a summary of our decision (and how it varies the Judge's findings) in the following table.

			Trial Judge's findings	**Our findings**
Estate claim	Funeral, medical expenses, Letters of Administration, and general damages		$31,390.99	$31,390.99
	CI fees		**(To be taxed or agreed)**	**$26,000.00**
	Total		**$31,390.99 (plus CI fees)**	**$57,390.99**
Dependency claim	Bereavement		$15,000.00	$15,000.00
	Parents' loss of support		$94,000.00	$94,000.00
	Mr Seto's loss of support	Household expenses	$286,752.96	$286,752.96
		Mortgage payments	**$703,112.97**	**$0.00**
		Property expenses	$113,850.00	$113,850.00
		Car expenses	$296,700.00	$296,700.00
		Total	**$1,400,415.93**	**$697,302.96**
	Marcus's loss of support		$96,881.69	$96,881.69
	Melvin's loss of support		$121,996.28	$121,996.28
	Total		**$1,728,293.90**	**$1,025,180.93**

		Trial Judge's findings	**Our findings**
Loss of inheritance claim	Projected income (post-tax income less the Deceased's personal expenses and spending on the dependants ($90,000))	**$3,283,372.59**	**$2,615,109.35**
	Stock options	**$556,500.00**	**$0.00**
	Total	**$3,839,872.59**	**$2,615,109.35**
Total		**$5,599,557.48 (plus CI fees)**	**$3,697,681.27**

73 We have considered the parties' respective cost schedules. Dr Foo has failed in his appeal on liability and partially succeeded on some items on quantum. On appeal, the focus and majority of the time and effort related to liability. The few items on quantum were resolved without too much difficulty. Having considered all the circumstances, we award the respondents costs in the sum of $75,000 (all-in) for the appeal. In addition, costs of $5,000 all-in were awarded against Dr Foo to the respondents for CA/SUM 20/2021, which is the respondents' application for Dr Foo to provide further security for their costs in the appeal.

74 We further direct that all sums furnished as security for the appeal, including the additional security of $60,000 ordered pursuant to CA/SUM 20/2021, be released to the respondents.

Sundaresh Menon
Chief Justice

Andrew Phang Boon Leong
Justice of the Court of Appeal

Quentin Loh
Judge of the Appellate Division

Narayanan Sreenivasan SC, Palaniappan Sundararaj and Lim Min (K&L Gates Straits Law LLC) for the appellant;
Kuah Boon Theng SC, Yong Shuk Lin Vanessa, Chain Xiao Jing Felicia and Valerie Thio Shu Jun (Legal Clinic LLC) for the respondents.