SINGAPORE MEDICAL COUNCIL DISCIPLINARY COMMITTEE INQUIRY FOR DR KOH GIM HWEE HELD ON 11, 12, 25 – 27 APRIL and 13 JUNE 2011

Disciplinary Committee:
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A/Prof Pang Weng Sun
Prof Quak Seng Hock
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DECISION OF THE DISCIPLINARY COMMITTEE

(Note: Certain information may be redacted or anonymised to protect the identity of the parties.)

1. INTRODUCTION

1.1 The Respondent and the Complainant

1.1.1 The Respondent, Dr Koh Gim Hwee ("Dr Koh"), is a registered medical practitioner. He has been a Consultant obstetrician and gynaecologist at Raffles Hospital since 1997.[1] By all accounts, Dr Koh is well-liked by his patients.[2]

1.1.2 The Complainant ("Complainant") is the husband of the Patient ("the Patient"), a patient of Dr Koh's.

1.2 Background to the Complaint

1.2.1 The Patient first consulted Dr Koh on 17 August 2006 for a second opinion in connection with her first pregnancy.[3] The Patient went on in that pregnancy under the management of another obstetrician to have an uneventful delivery by a lower segment

[1] Agreed Bundle of Documents ("AB69")

[2] AB70, NE52, NE77, NE79

[3] AB166

Caesarean section ("LSCS") necessitated by non-progress of labour.[4] The Patient's consultation of Dr Koh on that occasion in 2006 is unrelated to this inquiry.

1.2.2 On 14 February 2008,[5] when the Patient was 28 years of age,[6] she consulted Dr Koh with a view to his managing her second pregnancy. He did so from her first antenatal visit on that day until he delivered the Patient's second child,[7] Baby ("Baby") by an emergency LSCS[8] at 8.32 am on 19 October 2008.[9] During the procedure, Dr Koh found that "part of the [Patient's] lower uterus had split open about 2 cm (scar dehiscence), showing the foetal head."[10]

1.2.3 Sadly, Baby was flat at birth and had to be resuscitated by the attending neonatologist.[11] Baby suffered Grade 3 hypoxic ischaemic encephalopathy.[12] Baby was subsequently diagnosed to have mixed spastic and dystonic quadriplegic cerebral palsy and infantile spasms.[13] Baby requires prolonged rehabilitation treatment.[14]

1.3 The Complaint

1.3.1 By a statutory declaration dated 11 November 2008,[15] supplemented by a second statutory declaration dated 23 December 2008,[16] the Complainant lodged a complaint with the Singapore Medical Council ("SMC") alleging misconduct against Dr Koh in connection with his management of the Patient's second pregnancy.

2. THE CHARGES

2.1 Three charges preferred

2.1.1 Arising from the Complainant's complaint, the SMC preferred three charges against Dr Koh on 13 October 2010:[17]

[4] Agreed Statement of Facts ("ASLOF") para 2.
[5] AB167
[6] AB183.
[77] AB 46.
[8] AB299-302
[9] AB206
[10] AB41
[11] AB41
[12] ASOF para 15; AB 46.
[13] ASOF para 15; AB 46; AB55
[14] AB55
[15] AB 26
[16] AB31
[17] AB232

a. **First charge**: "That . . . Dr Koh Gim Hwee [performed] a procedure on [the Patient] . . . on 18 October 2008 . . . which was not within the norms of acceptable medical practice:

PARTICULARS

(i) On 18 October 2008, the Patient was admitted to Raffles Hospital for induction of labour; and

(ii) Sometime after 1700 hrs on 18 October 2008, you used Hegar Dilators to forcibly open the Patient's cervix for induction of labour, a procedure that is not within the norms of accepted medical practice.

b. **Second charge**: "That . . . Dr Koh Gim Hwee . . . failed to provide the Patient with adequate information so as to enable her to make an informed choice about her further medical management in breach of Section 4.2.4.1 of the Singapore Medical Council's Ethical Code and Ethical Guidelines ("the ECEG"),

PARTICULARS

(i) The Patient first consulted [Dr Koh] on 14 February 2008, at which point [Dr Koh was] made aware of the fact that her first child had been delivered by way of a Caesarean section; and

(ii) The Patient was admitted to Raffles Hospital on 18 October 2008 for induction of labour; and

(iii) At no time between 14 February 2008 and 18 October 2008 did [Dr Koh] provide the Patient with adequate information so as to enable her to make an informed choice as to whether to proceed with a trial of vaginal birth after a Caesarean section ("VBAC")

and that in relation to the facts alleged, [Dr Koh has] been guilty of professional misconduct within the meaning of section 45(1)(d) of the Act.

c. **Third charge**: That . . . Dr Koh Gim Hwee . . . failed to ensure that the Patient was adequately informed about her medical condition and options for treatment so that she was able to participate in decisions about her treatment and failed to make her aware of the benefits, risks and possible complications of an induction of labour for trial of VBAC and obtain her informed consent for it, in breach of Rule 4.2.2 of the ECEG.

PARTICULARS

(i) The Patient first consulted you on 14 February 2008, at which point you were made aware of the fact that her first child had been delivered by way of Caesarean section;

(ii) The Patient was admitted to Raffles Hospital on 18 October 2008 for induction of labour;

(iii) At no time between 14 February 2008 and 18 October 2008 did you provide the Patient with adequate information about her medical condition and options for treatment to enable her to participate in the decision on whether to proceed with a trial of VBAC; and

(iv) At no time prior to 18 October 2008 did you make the Patient aware of the benefits, risks and possible complications of an induction of labour for trial of VBAC and obtain the Patient's informed consent for the same,

and that in relation to the facts alleged, [Dr Koh has] been guilty of professional misconduct within the meaning of section 45(1)(d) of the Act.

2.1.2 It will be noted that these disciplinary proceedings are governed by the Medical Registration Act (Cap 174, 2004 Ed), the edition in force when the complaint was made and when the charges were framed and preferred.

2.2 Our findings

2.2.1 On the First Charge, we find that Dr Koh has committed professional misconduct in that he deviated from the norms of medical practice when he elected to use Hegar dilators to forcibly dilate the Patient's cervix for two reasons:

a. Hegar dilators are designed to dilate the cervix for gynaecological procedures and not for induction of labour. Using them to dilate the cervix mechanically does not ripen the cervix or improve the chances of a woman achieving a natural delivery. [18]

b. There were 3 other viable accepted options available to him. [19]

[18] NE 50, 88, 90.

[19] NE 90

2.2.2 On the Second Charge, we are not able to find beyond reasonable doubt that Dr Koh failed to give the Patient adequate information for the Patient to consider a trial of VBAC. The oral evidence of the Patient and Complainant as well as their behaviour suggests that it is more than reasonably possible that Dr Koh provided them enough information to proceed with a trial of VBAC.

2.2.3 On the Third Charge, we find that Dr Koh is guilty of professional misconduct in that he did not give the Patient adequate information about her medical condition or about her options for treatment. In particular, Dr Koh failed on 18 October 2008:

a. to inform the Patient that a trial of VBAC with induced labour carries greater risks than a trial of VBAC with spontaneous labour; and

b. to give the Patient sufficient information about the risks of continuing VBAC in the face of an unfavourable cervix and about the benefits of abandoning the trial of VBAC in favour of a repeat LSCS.

2.2.4 We now deal with certain preliminary points before we analyse the facts and set out our detailed reasons for our findings.

3. PRELIMINARY POINTS

3.1 Burden and standard of proof

3.1.1 We accept that the burden of proof in respect of all 3 charges rests on the Prosecution throughout. We accept further that the Prosecution must discharge its burden of proof beyond reasonable doubt.

3.2 Clinical outcome not directly relevant to misconduct

3.2.1 Although there was evidence before us about the clinical outcome of Dr Koh's management of the Patient's pregnancy both for the Patient and for the Baby, that outcome is strictly speaking not relevant to a determination of misconduct. Our task is to determine whether the Prosecution has proved beyond reasonable doubt that Dr Koh is guilty of professional misconduct on any of the charges preferred against him.

3.2.2 Our task is therefore to consider and assess the quality of Dr Koh's conduct – both his acts and his omissions – judged by the norms of medical practice and without the benefit of hindsight. The norms of medical practice used to test the quality of any conduct are of course related to the likely outcome of the conduct. But they are independent of the actual outcome. Conduct which is not professional misconduct does not become professional misconduct merely because the clinical outcome is poor. By the same token, conduct which is professional misconduct does not lose that character merely because the clinical outcome is good.

3.3 **Not our task to determine negligence**

3.3.1 Further, because our task of determining whether Dr Koh is guilty of misconduct is independent of the clinical outcome, we are also not concerned with determining or allocating fault or determining causation for the outcome of the Patient's management, whether for the Patient or for the Baby.

3.3.2 So, while conduct which is professional misconduct may in some circumstances also be negligence, it is not part of our task to determine whether Dr Koh was negligent or whether his conduct caused the Patient's uterine rupture or Baby's current condition.

3.3.3 Our task is to determine whether the Prosecution has proven beyond reasonable doubt that any of the three aspects of Dr Koh's conduct as particularised in the three charges amounts to professional misconduct.

3.4 **Test of "professional misconduct"**

3.4.1 In this connection, it is common ground between the Prosecution and the Respondent that the test we must apply is set out in *Low Cze Hong v Singapore Medical Council* [2008] 3 SLR(R) 612 at [37]:

> "In summary, we accept . . . that professional misconduct can be made out in at least two situations: first, where there is an intentional, deliberate departure from the standards observed or approved by members of the profession of good repute and competency; and second, where there has been such serious negligence that it objectively portrays an abuse of the privileges which accompany registration as a medical practitioner."

3.4.2 In closing submissions on 27 April 2011, the Prosecution accepted that its case against Dr Koh is based only on the first limb of the *Low Cze Hong* test: "an intentional deliberate departure from the standards observed or approved by members of the profession of good repute and competency".

3.5 **"Professional misconduct" wider than "infamous conduct"**

3.5.1 It is clear from *Low Cze Hong* at [27] that the modern test of "professional misconduct" under section 45(1)(d) of the Medical Registration Act "plainly embraces a wider scope of conduct for which disciplinary action can be taken by the SMC" than the older test which it replaced of "infamous conduct in a professional respect".

3.6 **Overlap between Second and Third Charge**

3.6.1 The facts underlying the Second and Third Charges overlap to a significant degree in two senses:

a. In an ethical sense, the two charges overlap even though they each cite a different provision of the ECEG. Both provisions of the ECEG are to do with the physician's ethical obligation to provide adequate information to a patient to permit the patient to make informed choices about the medical management which the physician proposes and to give informed consent to it.

b. In a factual sense, the two charges overlap because particulars (i), (ii) and (iii) of both charge are word-for-word identical, save that particular (iii) in each charge tracks the language of the specific section of the ECEG in play.

3.6.2 However, particular (iv) of the Third Charge is different from any of the particulars relied on in support of the Second Charge. This aspect of the Third Charge is therefore factually distinct from any aspect of the Second Charge.

3.6.3 When asked about the overlap, counsel for the Prosecution explained in oral closing submissions that the two charges were different sides of the same coin in that each charge alleged misconduct under a different provision of the ECEG but arising from the same facts. Counsel for Dr Koh submitted that that meant that the Disciplinary Committee should treat the two charges in substance as alternative charges: the Disciplinary Committee could find Dr Koh guilty of professional misconduct on one or the other of the two charges but not on both.

3.6.4 We agree that the Second and Third Charges are, in respect of the first three particulars, so closely connected both ethically and factually that it would indeed be unfair to Dr Koh to find him guilty of professional misconduct on these particulars under both the First and Second charges. We agree, therefore, that in that sense and in respect of the first three particulars, the Second and Third Charges are alternatives.

3.6.5 However, it is our view that insofar as particular (iv) of the Third Charge is one which the Prosecution does not rely upon to support the Second Charge, it is a head of potential liability for professional misconduct which is separate and distinct from anything in the Second Charge and therefore one which we must consider separately.

3.7 **Temporal scope of the charges**

3.7.1 Both the Second Charge and the Third Charge as particularised by the Prosecution alleges a culpable omission to inform the Patient which the Prosecution says should have happened between 14 February 2008, when the Patient first consulted Dr Koh in connection with her second pregnancy, until labour was being induced on 18 October 2008. The particulars for both the Second Charge and the Third Charge do not allege a culpable omission to advise the Patient of the benefits and risks in question which continued into the morning of 19 October 2008. This is the position taken in both the Second Charge and the Third Charge even though induction of labour in the Patient continued past midnight on 18 October 2008 and into the early hours of the morning of

19 October 2008 and even though Dr Koh's management of the Patient's pregnancy did not end until he performed the emergency LSCS at 8.32 am on 19 October 2008.

3.7.2 Dr Koh's counsel in oral closing submission submitted that this form of drafting of the Second and Third Charges precludes us from considering as culpable any omission by Dr Koh on 19 October 2008. In the absence of any attempt by the Prosecution to amend the Second and Third charges to supplement the particulars and extend their temporal scope to allege a continuing omission until 19 October 2008, we agree with Dr Koh's counsel.

3.7.3 In relation to the Second Charge and the Third Charge, therefore, we consider only whether Dr Koh's conduct until midnight on 18 October 2008 discloses an omission amounting to professional misconduct.

4. THE FACTS

4.1 The oral evidence

4.1.1 The Disciplinary Committee heard evidence in this matter over 4 half-days on 11, 12, 25 and 26 April. The Committee then heard closing submissions from both parties on 27 April 2011, supplemented by written submissions tendered on the same day.

4.1.2 The following witnesses gave evidence for the Prosecution

a. The Patient;[20]

b. The Complainant;[21]

c. Senior Staff Nurse Witness P[22] who received and prepared the Patient when she arrived at Raffles Hospital for an induction of labour on 18 October 2008 and who gave evidence of how Dr Koh called for and used the Hegar dilators;[23]

d. Dr P,[24] the Prosecution's expert witness .[25]

4.1.3 The following witnesses gave evidence for the Respondent:

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[20] NE 4 to 24.

[21] NE 24 to 37.

[22] NE 38 to 43.

[23] Notes of Evidence prepared by Lee & Lee ("NE") page 40 – 41.

[24] NE 44 to 51.

[25] AB231

a. Dr Koh;[26]

b. Senior Staff Nurse Witness D1 [27] who was present when Dr Koh saw the Patient at 2145 on 18 October 2008;

c. Nurse Witness D2 [28] who took over from SSN Witness D1 at 0700 on 19 October 2008;

d. Nurse Witness D3 [29] who ran Dr Koh's antenatal night clinic at Raffles Tampines and who spoke to the Patient when she attended there;[30]

e. Two other patients of Dr Koh – unrelated to the facts of this case – who gave evidence that Dr Koh advised them of the risk of uterine rupture in trial of VBAC:

(i) Witness D4 ;[31] and

(ii) Witness D5 .[32]

f. Dr D,[33] the respondent's expert witness.

4.2 **Agreed, undisputed and disputed facts**

4.2.1 We have considered carefully:

a. the facts agreed between the Prosecution and Defence as set out in the Agreed Statement of Facts dated 25 March 2011;

b. the facts which though not agreed are not in dispute; and

c. the facts which are disputed in the light of the evidence of all of the witnesses presented on both sides.

4.2.2 We now set out in this section our findings of fact which reflect how we have resolved any conflicts in the evidence.

[26] NE 51 to 75.
[27] NE 75 to 76.
[28] NE 77.
[29] NE 77 to 79.
[30] NE78
[31] NE 80 to 81.
[32] NE 81 to 83.
[33] NE 83 to 91.

4.3 Advice on risks of VBAC

4.3.1 Although it was in dispute whether the Patient chose Dr Koh specifically for her second pregnancy because her previous gynaecologist refused to allow her to try VBAC[34] or because Dr Koh's clinic was more convenient for the Patient,[35] it is agreed that it was the Patient who asked Dr Koh to let her try VBAC.[36]

4.3.2 Dr Koh agreed to a trial of VBAC. The Patient was a good candidate for VBAC because there were no contraindications: her previous LSCS was not due to the first baby's head being too big or her pelvis being too small.[37] The chance of a successful VBAC was 80%.

4.3.3 However, Dr Koh did not document any discussion between Dr Koh and the Patient on the mode of delivery, the potential risks of VBAC or the risks of a repeat LSCS.[38] On this issue, the Complainant and the Patient's evidence on the one hand[39] and Dr Koh's on the other hand[40] were diametrically opposed. We analyse this conflict in paragraph 6 below in the course of setting out our findings on the Second Charge.

4.4 Inducing delivery

4.4.1 It is part of Dr Koh's practice to induce labour when a patient of his reaches her expected due date without going into spontaneous labour.[41] Thus, in the absence of spontaneous labour, Dr Koh saw the Patient on 17 October 2008,[42] her expected due date, and made arrangements for her to be admitted to Raffles Hospital on 18 October 2008 for induction of labour.[43]

4.4.2 The Patient arrived at Raffles Hospital after 2.00 pm on 18 October 2008.[44] After admission and orientation,[45] cardiotocograph ("CTG") monitoring of the foetal heart

[34] NE 78.
[35] NE 15.
[36] ASOF para 3.
[37] NE 84
[38] ASOF para 3.
[39] NE 19 and NE 29.
[40] NE 53.
[41] AB 39, para 11; AB 72, para 16.
[42] AB 289, 290.
[43] ASOF para 4
[44] NE 7.
[45] NE 39.

rate was commenced shortly after 1500 hrs.[46] Subsequently, at her request, the Patient was started on epidural anaesthetic.[47]

4.4.3 Unusually, the administration of epidural anaesthetic was commenced before Dr Koh conducted a vaginal examination to assess the state of the Patient's cervix. Dr Koh did this because the Patient had expressed apprehension about the discomfort of the vaginal examination. As Dr Koh's own expert witness testified, this sequence was unfortunate: when Dr Koh later assessed the cervix and found it to be unfavourable, the fact that the Patient was already on the epidural created a need to dilate the Patient's cervix quickly if the trial of VBAC was to continue. That need in turn limited Dr Koh's options for the means to be used to achieve the dilation.[48]

4.5 Unfavourable cervix found

4.5.1 Between 1700 hrs[49] and 1810 hrs,[50] Dr Koh attempted twice[51] to perform an artificial rupture of the membranes ("ARM") on the Patient. The second ARM was done with the help of the midwife pressing the baby's head down.[52] Both attempts failed[53] because the Patient's cervix was long, tubular with a closed cervical opening.[54]

4.5.2 The chances of progressing to a natural delivery after ARM is 50% where the cervix is unfavourable and 80% when the cervix is favourable.[55]

4.6 The decision to use Hegar dilators

4.6.1 The Complainant,[56] the Patient [57] and Dr Koh[58] are all agreed that after the second unsuccessful attempt at ARM because of the Patient's unfavourable cervix, Dr Koh raised the possibility performing an LSCS. This is borne out by a contemporaneous (though not simultaneous) note by Dr Koh.[59] What is in dispute, though, is why Dr Koh did not follow through on the suggestion. On this, we have the conflicting evidence of the Complainant and the Patient on the one hand and of Dr Koh on the other.

[46] AB 72, para 18, AB 292
[47] AB 292.
[48] NE 90.
[49] AB 72 para 19.
[50] AB 292.
[51] AB 72, para 19; AB 73 para 20.
[52] AB 61, para 16.
[53] ASOF para 6.
[54] AB 292.
[55] NE 88.
[56] AB32 para 2.
[57] NE 7.
[58] AB 73 para 20.
[59] AB 292.

Unfortunately, Senior Staff Nurse Witness P was not in the delivery room at this point in time and so was not able to assist us in resolving this conflict.[60]

4.6.2 Having considered the evidence, we find the facts as follows. Dr Koh raised the possibility of an LSCS because of the Patient's unfavourable cervix, telling the Patient and Complainant that "he might have to do a Caesarean section" or "maybe Caesarean".[61] At that point, the Complainant and Patient exchanged looks.[62] But the Patient did not expressly refuse an LSCS. The Patient told Dr Koh "she wanted vaginal delivery if possible."[63] The last two words show that the Patient did not say this in the sense that she wished to make a decision about her own medical management overruling Dr Koh's clinical judgment. Instead, the Patient was expressing a preference about her medical management subject to Dr Koh's clinical judgment. This we find must have been clear to Dr Koh.

4.6.3 In this situation, one would have expected Dr Koh to:

a. Explain to the Patient the reduced chance of progressing to a natural delivery in the face of an unfavourable cervix;[64]

b. In light of this reduced chance, highlight to the Patient the increased risk associated with induction of labour in a trial of VBAC; and

c. Explain to the Patient how opting for an LSCS would mitigate or reduce those risks.

4.6.4 Dr Koh did none of these.

4.6.5 Instead, Dr Koh attempted to accommodate the Patient's original wish for a natural delivery. Dr Koh asked the Patient and Complainant how many children the Patient and Complainant wanted to have. The Complainant responded "maybe 3 or 4". Dr Koh considered what he could do to permit the induction of labour to continue. He struck upon the idea of using the Hegar dilators to forcibly dilate the Patient's cervix. But he did not tell the Patient this. Instead, Dr Koh told the Patient "that the only way to try for vaginal delivery was to forcibly open the cervix."[65] The Patient asked whether it would be painful to have her cervix forced open.[66] Dr Koh answered that it would not be painful

[60] NE 40, NE 42.

[61] NE 7, NE 20, NE 26.

[62] NE 7; NE 20, NE 26.

[63] AB 73, para 20.

[64] NE 88.

[65] AB 73, para 20; NE 7; NE 21.

[66] AB73, para 20; NE 7; NE21.

because the Patient was under epidural anaesthesia.[67] The Patient and Complainant then deferred to Dr Koh and acquiesced in his proposal.

4.6.6 Dr Koh asked the midwife to get a dilation and curettage ("D&C") set from the operating theatre. The midwife left the delivery suite and asked SSN Witness P to arrange this. The person in charge of the operating theatre declined to lend a D&C set to Dr Koh in the delivery suite. SSN Witness P went back into the delivery suite and told Dr Koh this. Dr Koh then spoke on the telephone to the person in charge in the operating theatre and persuaded him or her to lend him the Hegar dilators (rather than the full D&C set) for use in the delivery suite.[68]

4.6.7 Dr Koh then used a Hegar dilator to dilate the Patient's cervix to 8mm[69] and performed the ARM using his finger and an amnio-hook.[70] He noted "heavy bleeding from the cervix"[71], clear amniotic fluid[72] and no uterine bleeding.[73] Dr Koh increased the intravenous oxytocin to increase the Patient's contractions.[74]

4.7 Further management on 18 October 2008

4.7.1 The nursing notes[75] show that at 2010 hrs, variable decelerations took place in the foetal heart rate down to 80 beats per minute lasting seconds. A vaginal examination showed that the cervix was dilated to 10mm, partially effaced and not stretchable. At 2040 hrs, the intravenous oxytocin was reduced because of the variable decelerations in the foetal heart rate.[76]

4.7.2 At 2125 hrs, the Patient complained of lower abdominal pain and on Dr Koh's directions, oxytocin was increased.[77]

4.8 Further monitoring of the Patient on 18 October 2008

4.8.1 The next and final time Dr Koh saw the Patient on 18 October 2008 was at 2145 hrs that night.[78] A vaginal examination showed that the Patient's cervix was only 15 mm

[67] AB 73, para 20.
[68] NE 40.
[69] AB 292.
[70] AB 73, para 23.
[71] AB 61, para 18.
[72] AB 292.
[73] AB 61, para 18.
[74] AB 61, para 18.
[75] AB 294
[76] AB 294.
[77] AB 294.
[78] AB 294, NE 75.

dilated and effaced.[79] Dr Koh told the Patient that progress was slow and suggested calling off the induction of labour and doing a LSCS.[80] The Patient again looked disappointed. Again the Patient did not expressly refuse an LSCS. Dr Koh then told the Patient and the Complainant that if they wanted to carry on with the induction of labour, he would continue to monitor the Baby's heartbeat but that if it was no good, they would have to do a LSCS.[81]

4.8.2 Again, one would have expected Dr Koh to:

a. Explain to the Patient the reduced chance of progressing to a natural delivery in the face of the continuing unfavourability of the cervix;[82]

b. In light of this reduced chance, highlight to the Patient the increased risk associated with induction of labour in a trial of VBAC; and

c. Explain to the Patient how opting for an LSCS would mitigate or reduce those risks.

4.8.3 Again, Dr Koh did none of these things.

4.8.4 At 2210 hrs, SSN Witness D1 noted four episodes of late decelerations in the foetal heart rate from 145 bpm to 75 bpm.[83] Oxytocin was reduced until the foetal heart rate recovered and the Patient was assisted to turn from left to right side.[84] Dr Koh was informed of the decelerations in the foetal heart rate at 2225 hrs.

4.8.5 At 2312 hrs, SSN Witness D1 noted early to late variable decelerations from 145 bpm to 80 bpm.[85] She nursed the Patient on her side and reduced her oxytocin drip.

4.8.6 This is the last relevant event which took place on 18 October 2008. As we have stated above, it is the Prosecution's case that Dr Koh's omissions on 18 October itself are sufficient to amount to professional misconduct. It is therefore strictly speaking unnecessary to consider the events of 19 October 2008. But since we heard evidence on these events, we go on to describe those events as we have found them.

[79] AB 294; AB 61, para 19; AB 74, para 25.
[80] NE 85.
[81] NE 75.
[82] NE 88.
[83] AB 294.
[84] AB 294.
[85] AB 296.

4.9 **Non-reassuring heartbeat**

4.9.1 In the early hours of 19 October 2008, Dr Koh was informed that the Baby's foetal heart rate was non-reassuring.[86] Dr Koh ordered the Patient's syntoconin drip to be stopped and instructed that the Patient be told to lie on her side.[87]

4.9.2 Dr Koh returned at 0430 on 19 October 2008 to examine the Patient and found that the Patient's cervix was only 2 cm dilated. He tried to stretch the Patient's cervix further.

4.9.3 The syntoconin drip was restarted at 0630 hours to augment the Patient's labour. It was discontinued at 0700 due to persistent non-reassuring foetal heart rate. It was restarted at 0720.

4.9.4 At 0720, Dr Koh reviewed the Patient again and found the foetal heart rate non-reassuring.

4.10 **Decision to deliver by LSCS**

4.10.1 At about 0750 am, Dr Koh told the Patient that she needed an LSCS.[88] The Patient immediately and readily consented. On the way to the operating theatre, the Patient experienced a sharp lower right abdominal pain.[89] Her dosage of epidural anaesthesia was increased so that the LSCS could be started as soon as she was on the operating table.[90]

4.10.2 While performing the emergency LSCS, Dr Koh found a 2 cm tear in the region of the previous LSCS scar, showing the foetal head.[91] Dr Koh had to disengage the foetal head from the pelvis. He delivered the Baby by forceps at 0832.[92] The Baby, as mentioned above, had to be resuscitated and suffers from permanent cerebral disabilities.[93]

[86] ASOF para 8 and 9.
[87] ASOF para 9.
[88] NE 77.
[89] AB 40, para 21.
[90] AB 40, para 21.
[91] AB 41, para 22.
[92] AB 41, para 22.
[93] AB 67.

5. OUR FINDING ON THE FIRST CHARGE

5.1 Hegar dilators not used in induction of labour

5.1.1 Hegar dilators are metal tools which range in diameter from 3mm to around 10mm.[94] They are used mainly for gynaecological procedures on a non-pregnant patient (for example to investigate abnormal uterine bleeding)[95] or in a pregnant patient (usually to perform a D&C and aspirate transcervically the products of conception).[96]

5.1.2 Both Dr P[97] and Dr D [98] agreed that Hegar dilators are not used in induction of labour because using them to dilate the cervix mechanically does not ripen the cervix or improve the chances of a woman achieving a natural delivery. Ripening the cervix is a gradual process involving chemical changes in the cervix to cause the cervix to become sharp, open and soft. It is a different process from a rapid mechanical dilation of the cervix with Hegar dilators to perform a D&C.[99]

5.1.3 As Dr P put it ". . . cervical ripening is not a process of dilatation. The quality of the cervix will only improve if you use a slow mechanical dilatation method. So if you open the canal forcibly and quickly here, it only opens up the cervix but does not contribute to cervical ripening. That is why the use of Hegar dilators is not prescribed for the ripening of the cervix."[100]

5.1.4 Dr D's evidence was that "the use of a Hegar dilator as part of the induction process is not usual practice".[101] In response to a question from the Chairman, Dr D confirmed that there is no literature on the success rate of rapid mechanical dilatation in inducing labour. This is because rapid mechanical dilatation is not something usually done in inducing labour because it does not improve the favourablity of the cervix.

5.1.5 The usual method of dilating the cervix in induction of labour is to use prostaglandins, which can take 4 to 6 hours to have effect. However, use of prostaglandins is contraindicated in trial of VBAC because it increases the risk of scar rupture to 2.5%.[102] Alternative methods of dilating the cervix for induction of labour in

[94] NE 45.
[95] AB 240, para 7(a).
[96] NE 45.
[97] NE 50
[98] NE 88, 90.
[99] NE 46.
[100] NE 50.
[101] AB 240, para 7(a).
[102] AB262, para 39.

trial of VBAC are mechanical methods such as dilapan[103] or a Foley's catheter. These methods take longer, in some cases substantially longer, than 4 to 6 hours.[104]

5.2 **Dr Koh had three choices – none involved Hegar dilators**

5.2.1 As Dr D testified, when faced with a situation where a candidate for VBAC was already on the epidural anaesthetic but her cervix was unfavourable, the attending obstetrician has three acceptable alternatives:[105]

a. Take the patient off the epidural and ask her to go home and wait for the cervix to ripen naturally;

b. Use prostaglandin as a ripening agent, but thereby creating an enhanced 2.5% risk of a uterine rupture;

c. Proceed with a Caesarean section.

5.2.2 It is significant that using Hegar dilators to forcibly dilate the Patient's cervix is not one of the options which Dr Koh's own expert put forward as an acceptable alternative in this situation.

5.3 **Basis for finding professional misconduct**

5.3.1 The test of professional misconduct which we must apply is "an intentional, deliberate departure from the standards observed or approved by members of the profession of good repute and competency".[106]

5.3.2 It is clear in this case that the use of Hegar dilators is indeed a departure from the norms of medical practice. This was the evidence of Dr P[107] and of Dr D.[108] Further, Dr Koh himself acknowledged euphemistically that what he did was "modified from the recognised mechanical method of induction".[109]

5.3.3 In the closing submissions presented on Dr Koh's behalf, his decision was described thus:

> 51. As the Patient was upset and wanted a vaginal delivery, Dr Koh improvised and used Hegar dilators to find and enter . . . the external

[103] AB 241, para 7(c)

[104] NE 46.

[105] NE 90

[106] See para 3.4 above.

[107] NE 50.

[108] AB 240, para 7(a).

[109] AB 73, para 22.

opening of the Patient's cervix so that he could insert his finger and use an amniohook to break the water bag. Inserting the finger and using an amniohook to break the water bag is normal practice.[110]

52. Dr Koh had previously used Hegar dilators to dilate a woman's cervix to 8mm for the purpose of an abortion. This was a usual use of the Hegar dilators.[111] Therefore, he knew that he could use the Hegar dilators safely to dilate the Patient's cervix to 8mm.[112]

5.3.4 The question for us is not whether Hegar dilators can be used safely to dilate the Patient's cervix to 8mm. Undoubtedly, they can.

5.3.5 The question for us is whether using Hegar dilators to dilate the Patient's cervix to 8mm in the course of inducing labour in a trial of VBAC is a culpable departure from the standards observed or approved by members of the profession of good repute and competency.

5.3.6 We find that it was for the following reasons:

a. Hegar dilators are not used in induction of labour because using them to dilate the cervix mechanically does not ripen the cervix or improve the chances of a woman achieving a natural delivery. [113]

b. There were other, viable options available to Dr Koh that would have resulted in a physiologically effective onset of labour. [114]

5.3.7 It is true that it is not always or automatically professional misconduct for a doctor to "improvise".[115] The rules of professional conduct are not intended to stifle useful medical innovation. But even innovation and improvisation must be carried out within the norms of medical practice. And where, as here, the improvisation is medically accepted as being ineffective to achieve the purpose for which a doctor deploys it and where, as here, resort to the improvisation is unnecessary in the face of 3 acceptable alternatives which are all within the norms of medical practice, we find that Dr Koh's improvisation amounts to professional misconduct.

[110] NE 32.

[111] AB 240, para 7(a).

[112] Respondent's Closing Submissions dated 27 April 2011, para 51 and 52, page 14.

[113] NE 50, 88, 90.

[114] NE 90

[115] Respondent's Closing Submissions dated 27 April 2011, para 51 and 52, page 14.

6. OUR FINDING ON THE SECOND CHARGE

6.1 Conflict of evidence

6.1.1 The Complainant and the Patient's evidence on whether there was an oral discussion with Dr Koh about the risks of VBAC was clear and consistent: Dr Koh did not explain any of the risks of VBAC – and in particular the risk of uterine rupture – to the Patient or the Complainant.[116]

6.1.2 Despite the complete and admitted lack of documentation of any such advice in his notes, Dr Koh's evidence was equally clear: "I discussed with [the Patient] . . . the pros and cons of a vaginal delivery and told her it might be dangerous. I told her that to try for vaginal delivery there was a risk of uterine rupture and that I had to monitor her closely and that I might have to do an emergency Caesarean section delivery."[117] However, Dr Koh could not be precise on the particular date on which he had this discussion and accepted that it could have taken place as late at 17 October 2008, the Patient's expected due date, when discussing the arrangements to admit her to induce delivery.[118]

6.1.3 Having considered all the evidence, we are unable to find beyond reasonable doubt that Dr Koh failed to give sufficient advice to the Patient with regard to the risks of VBAC. We make this finding for the following reasons:

a. The fact that Dr Koh's notes do not document this advice is not conclusive evidence that he failed to give the advice. As *Low Cze Hong* makes clear at [80], a lack of documentation is only one factor to be taken into account in considering whether the Prosecution has discharged its burden of proving that the matter which ought to have been recorded did not in fact take place.

b. Dr Koh's evidence was that in the history of his practice, only 3 of his patients have had a successful VBAC. The Disciplinary Committee had available to it the oral evidence of two of these three patients. Both patients confirmed that Dr Koh did explain to them the risks of VBAC: that the previous LSCS scar may rupture.[119] The third patient was unable to give evidence because she was abroad.

c. We also had in evidence Dr Koh's notes for all three of these patients. None of these notes had any record of any advice having been given about the risks of VBAC. This supports Dr Koh's evidence that because this advice is routine, he does not record it in his notes.

[116] NE 19 and NE 29.

[117] NE 53.

[118] NE 53.

[119] NE 81,

6.2 Unable to find misconduct beyond reasonable doubt

6.2.1 We are therefore unable to make a finding beyond reasonable doubt that Dr Koh failed to advise the Patient on the risks of VBAC at any of the Patient's antenatal consultations. It is true that Dr Koh's evidence means that he has breached Guideline 4.1.2 of the ECEG. But that is not the subject-matter of any charge against him.

7. OUR FINDING ON THE THIRD CHARGE

7.1 Induction of labour in trial of VBAC

7.1.1 We accept that induction of labour is not contraindicated in a trial of VBAC – the Prosecution did not allege otherwise.[120] However, Dr D's evidence was that "VBAC is more likely to succeed in women who go into spontaneous labour when compared to induced women."[121]

7.1.2 Further, and more significantly, trial of VBAC with labour which is induced or augmented (as the Patient's was) carries risks quantitatively different from trial of VBAC with labour which is spontaneous.[122] Dr Koh's own expert witness, Dr D, gave evidence that the risk of uterine scar rupture increases from 0.5% in a VBAC trial with spontaneous labour to 0.8% in a VBAC trial with labour induced by use of oxytocin.[123]

7.1.3 Further, the Royal College of Obstetricians and Gynaecologists' Green-Top Guideline No. 45,[124] which Dr Koh relied on in his written explanation tendered to the SMC dated 23 March 2009,[125] states the following in bold type in section 9:[126]

> **"Women should be informed of the two- to three-fold increased risk of uterine rupture and around 1.5-fold increased risk of Caesarean section in induced and/or augmented labours compared with spontaneous labours.**
>
> . . .
>
> **The decision to induce, the method chosen, the decision to augment with oxytocin, the time intervals for serial vaginal examination and the selected parameters of progress that would necessitate and advise on discontinuing VBAC should be discussed with the woman by a consultant obstetrician"**

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[120] AB 130.

[121] AB261 para 37.

[122] AB 261, para 38.

[123] AB243, para 10(d); AB 261, para 38.

[124] AB120

[125] AB 50.

[126] AB129

7.1.4 The obvious question then is whether all this additional information and these additional risks were explained to the Patient either on 17 October 2008 (when the decision was taken to induce labour on 18 October 2008) or in the course of the induction itself on 18 October 2008,[127] bearing in mind that for the reasons given in paragraph 3.6 above, we cannot have regard to any of Dr Koh's conduct on 19 October 2008.

7.2 Reasons for finding misconduct

7.2.1 We find that the Prosecution has proved beyond reasonable doubt that Dr Koh did not, whether at the consultation on 17 October 2008 or at any time in the course of inducing labour on 18 October 2008, adequately inform the Patient about her medical condition and options for treatment so that she was able to participate in decisions about her treatment or make her aware of the benefits, risks and possible complications of an induction of labour for trial of VBAC to obtain her informed consent.

7.2.2 We make this finding for the following reasons:

a. Dr Koh in his written explanation[128] dated 23 March 2009 to the SMC explained his usual practice in explaining the risks of VBAC to a patient.[129] He also sets out 3 discussions he had with the Patient about mode of delivery.[130] However, nowhere in his written explanation does Dr Koh suggest that on 17 October 2008 or on 18 October 2008 that he explained to the Patient the added risk of uterine rupture when VBAC is attempted with induced instead of spontaneous labour.

b. Similarly, there is no mention anywhere in Dr Koh's written explanation of any discussion with the Patient as the situation evolved on the evening of 18 October 2008 of the risks of persisting in the induction of labour leading to VBAC or of the ways in which opting for an LSCS would mitigate those risks.

c. There is nothing in the clinical notes to indicate that any information about the additional risks of induced labour in trial of VBAC in general or of the specific risks of persisting in inducing labour on the evening of 18 October 2008. While the antenatal advice may rightly be described as routine and the lack of documentation therefore not count against Dr Koh, on 17 October 2008 and 18 October 2008, the Patient's situation became – step by step – far from routine.

[127] AB 289, 290.

[128] AB 69.

[129] AB 71, para 10 and 15.

[130] AB 71, para 11, 13 and 14.

d. The transcript[131] conversation between the Patient and the Complainant which the Complainant taped secretly also supports this. The transcript shows in many occasions that the Patient and Complainant were accusing Dr Koh of failing to advise them of the risks of induction and in persisting with the induction, not in relation to the risks of VBAC by itself.[132]

7.2.3 We find, therefore, that on 2 occasions on 18 October 2008, Dr Koh failed to inform the Patient adequately about her options for treatment so that she was able to participate in decisions about her treatment and failed to make her aware of the benefits, risks and possible complications of an induction of labour for trial of VBAC:

a. When he first assessed the Patient's cervix on 18 October 2008 and found he was unable to perform ARM because the Patient's cervix was long, tubular with a closed cervical opening.[133]

b. At 2145 when he found that the progress of cervical dilation was slow.

7.2.4 It is true that on both these occasions, Dr Koh raised the possibility of an LSCS. However, he dropped that possibility because he sensed – or the Patient told him – that she was reluctant to abandon the trial of VBAC. However, the Patient never indicated an intention to override Dr Koh's clinical judgment. And the Patient never expressly refused an LSCS. Further, even if the Patient made an implicit choice to refuse an LSCS on both occasions, that was not an informed refusal because Dr Koh did not give her adequate information in order for the Patient to make an informed decision about the risks of persisting in the induction of labour or the possible mitigation of those risks by abandoning the induction of labour in favour of an LSCS.

7.2.5 For these reasons, we find that the Prosecution has established the Third Charge beyond reasonable doubt.

8. CONCLUSION

8.1 Conclusion on misconduct

8.1.1 The Committee accordingly finds as follows:

a. On the First Charge, we find Dr Koh guilty of professional misconduct in that he deviated from the norms of medical practice when he elected to use Hegar dilators to forcibly dilate the Patient's cervix for induction of labour.

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[131] AB 1 to 25.

[132] AB 6, AB 8, AB 12, AB 13, AB 21, AB 22, AB 23.

[133] AB 292.

b. On the Second Charge, we find Dr Koh not guilty of professional misconduct.

c. On the Third Charge, we find Dr Koh guilty of professional misconduct in that he did not give the Patient adequate information about her medical condition or about her options for treatment on 17 October 2008 when the decision was taken to induce labour in the Patient on 18 October 2008; and on 18 October 2008 while the induction of labour was in progress.

8.1.2 We also wish to record an express finding that Dr Koh acted at all times in good faith – out of an honest but ultimately misguided desire to accede to the Patient's wishes as to her mode of delivery, but overlooking the fact that the Patient by expressing her wish was not indicating an intention to overrule his clinical judgment.

8.2 **Sentence imposed**

8.2.1 On 13 June 2011, we heard the parties' written and oral submissions on sentence and mitigation.

8.2.2 Having heard these submissions and having considered them in the light of the sentencing precedents cited by both parties and all the circumstances of the case, and in particular our finding at paragraph 8.1.2 above, we make the following orders under section 45(1)(2) of the Medical Registration Act (Cap 174, 2004 Ed):

a. That Dr Koh pay a penalty of $10,000;

b. That Dr Koh be censured;

c. That Dr Koh give the following undertakings as to his future conduct:

(i) An undertaking not to use Hegar dilators in the induction of labour;

(ii) In relation to any patient of his who undergoes VBAC with induced or augmented labour or related obstetric procedures, an undertaking to:

- advise that patient of the relevant risks of such procedure in accordance with Guideline 4.2.2 of the ECEG or any future guideline which governs his professional obligation in the same respect;

- to record that advice in accordance with Guideline 4.1.2 of the ECEG or any future guideline which governs his professional obligation in the same respect.

d. That Dr Koh pay to the Medical Council the costs and expenses of and incidental to these disciplinary proceedings, such costs to include the items enumerated in section 45(7) of the Medical Registration Act (Cap 174, 2004 Ed).

8.3 **Publication of decision**

8.3.1 We hereby order that the Grounds of Decision be published.

8.3.2 The hearing is hereby concluded.

Dated this 13th day of June 2011.