protective factors of CS, BO and compassion satisfaction (CS) amongst physicians in an Asian pediatric emergency department during a pandemic.

Methods A qualitative, individual interview methodology was employed. From March to April 2020, we enrolled 20 physicians involved in frontline care during the coronavirus disease 2019 (COVID-19) pandemic in the pediatric emergency department to participate. Semi-structured interviews were conducted, audiotaped and transcribed in verbatim, with identifiers removed. Themes were identified and data analysed using qualitative data analysis and iterative data analysis.

Results We recruited 20 physicians. Three themes emerged from data analysis. Firstly, we showed how workplace conditions are protective, including work morale, leadership and management and social support received. Secondly, workload affected participants emotionally and in terms of its heavier quantity and longer hours. Finally, intrinsic factors that were protective in developing CF or BO include having professional autonomy, experience, work-life balance and having emotional resilience to develop self-care. Cultural influences affect emotional regulation and can lead to negative coping with negative peer pressure. In general, participants quantified their levels of satisfaction at work as average to above-average. However, they highlighted experiencing greater stress during COVID-19 with the underlying fear of contagion and infection.

Conclusions Being a pediatric emergency physician puts one at greater risk of experiencing CF and BO because of work and non-work stressors especially during a global pandemic, influenced by sociocultural factors. A positive and supportive work environment should be created while providing culturally-adapted strategies to improve individual physician resilience to maintain their well-being

12 CHALLENGES OF MONITORING AND TREATING RECURRENCE OF PRIMARY FOCAL SEGMENTAL GLOMERULOSCLEROSIS AFTER RENAL TRANSPLANTATION

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Background

Introduction In patients under 16 presenting with nephrotic syndrome, primary focal segmental glomerulosclerosis (FSGS) is an important differential. High recurrence rates following transplantation, and a considerable risk of progression to end-stage renal disease, are well-recognised in cases with presumed circulating permeability factors rather than a genetic cause. To limit the risk of graft loss, it is therefore crucial to monitor for relapsing disease. The main marker of recurrence is proteinuria, however this can be challenging to interpret in a patient with high proteinuria pre-transplantation.

Objectives This is a case of a 14-year-old with FSGS, who developed early recurrence post-transplantation.

Methods

Case Presentation Pre-emptive renal transplantation was discussed with the family of a 14-year-old male with steroid-resistant FSGS, who had also not responded to tacrolimus, mycophenolate and rituximab. Proteinuria would be difficult to interpret post-transplantation, as he continued to produce

high levels of proteinuria with a significant urine output. A number of options were explored including; (1) bilateral nephrectomies or embolization pre-transplantation to shut down native function altogether; (2) a tube into the transplant renal pelvis passing through the bladder, serving as a catheter to monitor urine exclusively from the transplant kidney; (3) delay of transplantation until native kidney function completely ceased. Given the challenging practicality of (2), and uncertain timescale of (3), bilateral nephrectomies were arranged a few weeks prior to transplantation.

Results

Outcome After day five following a live donor kidney transplant, proteinuria developed progressively. Daily therapeutic plasma exchange was commenced for two weeks. Renal function continued to deteriorate, and lipoprotein apheresis was trialled. A transplant renal biopsy, nine days following lipoprotein apheresis, reported early recurrence of FSGS.

Conclusions

Discussion The leading cause of renal graft failure in primary FSGS, within the paediatric cohort, is disease recurrence. Removal of circulating permeability factors using extracorporeal systems, such as therapeutic plasma exchange and lipoprotein apheresis, could theoretically improve graft survival. Despite a number of possibilities considered, this case highlights the difficulties of monitoring and treating disease recurrence post-transplantation.

14 DEVELOPMENT OF PERIOPERATIVE CHECKLIST FOR INFANTS REQUIRING SURGICAL INTERVENTION

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Background Infants requiring surgical intervention are at high risk of complications. Peri-operative checklists have demonstrated reduction in morbidity and mortality in many patient groups by maintaining high standards of care provided.

Objectives We audited compliance with current perioperative protocols on a surgical neonatal intensive care unit at King's College Hospital, London, UK and identified deficits in documentation and clinical practices. A perioperative checklist was then formulated as a quality improvement activity to standardize care which was re-audited to demonstrate significant improvisation of deficiencies.

Various new variables were introduced with the implementation of peri-operative check list to provide an extended and comprehensive health care package to infants undergoing surgical interventions. These included post-operative examination, IV antibiotics, replacement of ongoing fluid losses, identity bands and COVID swabs results prior to theatres.

Methods Review of case notes were undertaken pre and post-operatively. Documentation of clinical examination, laboratory investigations, imaging, ventilation plan, consent, communication, prescriptions of fluids, antibiotics and analgesia were assessed.

Results The case records of 48 infants (birth weight 460 – 4600 grams) with gestational ages ranging from 23–41 weeks were analysed (shown in table 1) both pre and post introduction of peri-operative checklist (shown in figure 1). The surgical interventions included laparotomy (32), neurosurgery (10), thoracotomy (4) and central venous line insertion (2).

Abstract 14 Table 1 Variables

		Compliance, Pre-QIP, n(%)	Compliance, Post QIP, n(%)
Pre-operative	Blood investigations	26(100)	22(100)
	Cross match & arranging blood products	26(100)	22(100)
	Consent	26(100)	22(100)
	Starvation	26(100)	22(100)
	IV access & IV fluids	26(100)	22(100)
	ITU cot	26(100)	22(100)
	Cranial scan	26(100)	22(100)
Post-operative	Operative notes review	26(100)	22(100)
	Anaesthetic notes review	26(100)	22(100)
	Ventilation plan	9(34.6)	20(91)
	Imaging	26(100)	22(100)
	IV access	26(100)	22(100)
	Fluid prescription	11(42.3)	18(81.8)
	Blood investigations	25(96.1)	22(100)
	Cranial scan	26(100)	22(100)
	Updating parents	21(80.7)	22(100)
	Analgesia	26(100)	22(100)

Abstract 14 Table 2

PRE-OPERATIVE PREPARATION					
CLINICAL			COMMUNICATION		
	YES	NO	N/A	YES	NO
CROSS MATCH					
				BLOOD PRODUCTS	
				ARRANGED	
PRE-OPERATIVE BLOODS (FBC, U&E, COAGULATION)				SURGICAL CONSENT	
IV ACCESS				ANAESTHETIC REVIEW	
NBM				IV ANTIBIOTICS	
IV FLUIDS				ITU COT	
CRANIAL USS				ID BAND	
COVID SWAB (<24 hrs)					
POST-OPERATIVE CARE					
CLINICAL			COMMUNICATION		
	YES	NO	N/A	YES	NO
VENTILATION PLAN				ANAESTHETIC NOTES	
				REVIEWED	
ANALGESIA PLAN				OPERATIVE NOTES	
				REVIEWED	
IMAGING				PARENTS UPDATE (MEDICAL)	
CRANIAL USS				PARENTS UPDATE (SURGICAL)	
FLUIDS PRESCRIPTION					
FLUIDS LOSSES					
POST-OPERATIVE BLOODS (FBC, U&E, COAGULATION)					
POST OPERATIVE EXAMINATION					
IV ANTIBIOTICS					

Conclusions Introduction of a structured peri-operative checklist as a standard practice, significantly improved the compliance with most protocol recommendations and optimized safety during surgical care of infants.

15

DOES FAMILY INVOLVEMENT WITH SOCIAL CARE INCREASE THE DISCRIMINATORY POWER OF THE SHEFFIELD BIRTH SCORE FOR SUDDEN UNEXPECTED INFANT DEATH?

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Background There is a lack of effective scoring systems to identify populations at risk of Sudden Infant Death Syndrome (SIDS) with the published scoring systems limited by the infrequency of SIDS and reliance on retrospective data. The Sheffield Birth Score (SBS) is a risk-based score previously calculated at birth using 8 factors (such as birth weight and maternal smoking) which allocated targeted Health Visiting if the numerical total score was over 500. With SIDS rates in Sheffield above the national rate, can the SBS be expanded to improve identification of possibly preventable deaths and therefore focus intervention programmes?

Objectives The objective of the study is to assess whether the inclusion of active social care involvement as a factor can improve the predictive power of the current SBS model to better identify populations at risk of SIDS.

Methods Firstly data on birth scores from 7,321 births in Sheffield was matched with social care involvement 9 months before the birth to 6 months after. The data was then ranked in quintiles to assess summary data on the high risk vs. the low risk groups.

Secondly birth score data on a cohort of deaths classed as SIDS over a 10 year period was matched to social care involvement (n=44). The risk for SIDS was modelled using logistical regression.

Results The overall picture of births showed that 8.4% of births scored 500 or above. When matched to social care data, 51.3% of social care contacts were in the top quintile.

Looking at the cohort of 44 SIDS cases the average birth score was 485 - higher than over 80% of the total births, and 30 of the 44 cases were in quintile 5. A cut off of 500 would identify 52% of these cases. Using a lower cut off birth score of over 347 would have identified an additional 12 deaths, 5 of whom had social care involvement (41%). Using a score of over 452 (highest quintile) would have identified 30 deaths, 17 of whom had social care involvement (56%). All babies with social care involvement are 11.4 times more likely to die of SIDS compared to those with no social care involvement. A baby scoring in the lower four quintiles with social care involvement is 27.6 times more likely to die than a baby in the lower four quintiles with no social care involvement.

Conclusions The study presented confirms the higher the birth score the greater the likelihood of social care involvement. Social care as a factor is a useful predictor of SIDS, and may actually be more useful in the lower quintile birth score groups – previously thought to be low risk. The link of social care to high SBS and SIDS suggests the SBS does identify families where there is greater risk by encompassing multiple