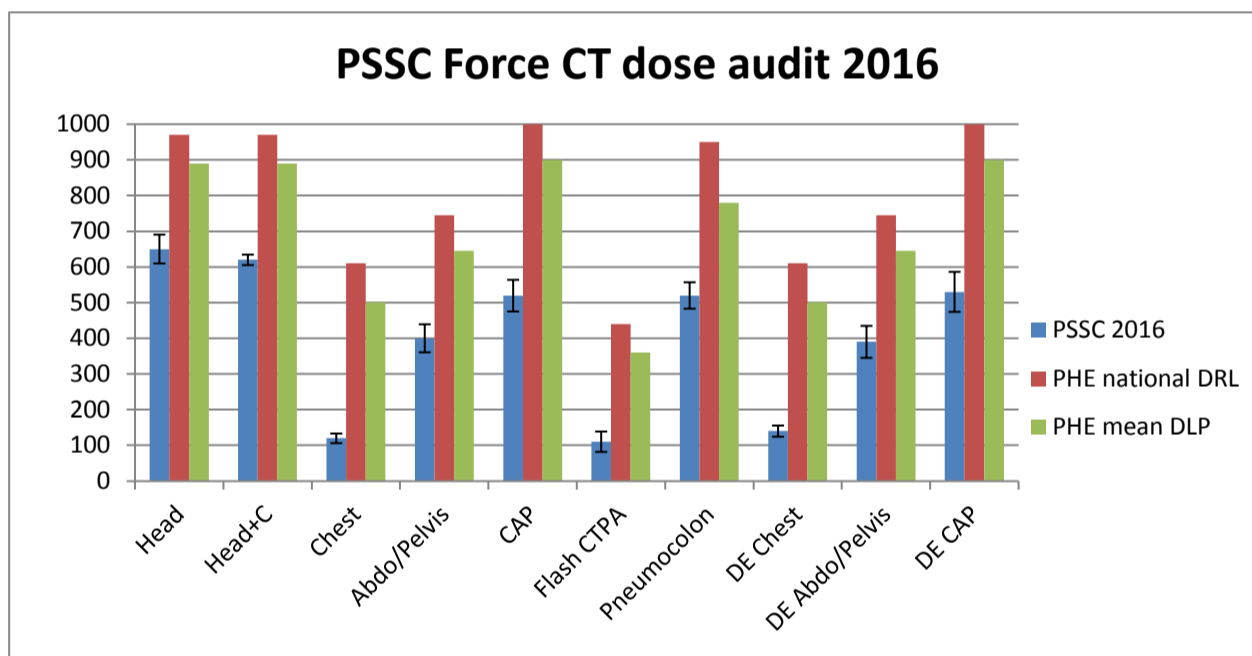


**Audit of PSSC Force CT protocols**

**Dates:** May - Dec 2016

The most common CT protocols were audited between May and December 2016. Patient weight data was used to audit patients in the weight range 60 to 80kg, and at least ten patients per examination were used to calculate average doses. Mean CTDI and DLP are compared to the current national diagnostic reference levels in the document PHE CRCE 013. Error bars are quoted as +/- 2 x the standard error in the mean.

Exam	Protocol	PSSC Force 2016			National DRL 2011	
		kV	CTDIvol (mGy)	DLP (mGycm)	CTDIvol (mGy)	DLP (mGycm)
Head	Head_IVCNeuroXCARE (Adult)	120	39	650	60	970
Head+C	Head_NoIVCNeuroXCARE (Adult)	120	38	620	60	970
Chest	CT Thorax abdomen pelvis with contrast	120	3.1	120	12	610
Abdo/Pelvis	CT Thorax abdomen pelvis with contrast	120	7.8	400	13	745
CAP	CT Thorax abdomen pelvis with contrast	120		520		1000
Flash CTPA	CTPA Turbo Flash	70 - 120	3.1	110	13	440
Pneumocolon	CT Colonoscopy Virtual	120	7.8 / 3.6	520	11	950
DE Chest	Dual energy CT Thorax abdomen pelvis with contrast	90/150	3.1	140	12	610
DE Abdo/Pelvis	Dual energy CT Thorax abdomen pelvis with contrast	100/150	8.5	390	13	745
DE CAP	Dual energy CT Thorax abdomen pelvis with contrast			530		1000



**Comments**

Results show that average doses are significantly lower than the national DRLs, most significantly for Chest and CTPA studies. PSSC CT doses are also significantly lower than the average national doses from the same PHE report.

Dual energy chest/Abdomen/Pelvis scans were compared to routine 120kV scans and found to be equivalent in dose, or 'dose neutral'.