

Supplementary Appendix 1- Detailed diagnosis codes for study inclusion/exclusion

	ICD9 Code	Diagnosis
Inclusion	592.0	Calculus of kidney
	592.1	Calculus of ureter
Exclusion	596.51	Hypertonicity of bladder
	596.52	Low bladder compliance
	596.53	Paralysis of bladder
	596.54	Neurogenic bladder NOS
	596.55	Detrusor sphincter dyssynergia
	596.59	Other functional disorder of bladder
	741.0	Spina bifida with hydrocephalus
	741.00	Spina bifida unspecified region with hydrocephalus
	741.9	Spina bifida without mention of hydrocephalus
	741.90	Spina bifida unspecified region without hydrocephalus
	756.17	Spina bifida occulta
	344.61	Cauda equina syndrome with neurogenic bladder
	752.62	Epispadias
	753.22	Congenital obstruction of ureterovesical junction
	753.23	Congenital ureterocele
	753.5	Exstrophy of urinary bladder
	753.6	Atresia and stenosis of urethra and bladder neck
	756.71	Prune belly syndrome
	V420	Kidney transplant

Supplementary Appendix 2- Stone-related procedure codes for study inclusion

Procedure	ICD9 Code	CPT Code(s)
SWL	98.51	50590
URS	56.31	52325 52344-46 52351-55
Stent	59.8	52332