Introduction: Knife crime has increased in the United Kingdom, with increasing numbers of people requiring treatment for stab wounds. There were approximately 5,000 patients who presented in English hospital in 2017/18 secondary to stab injury, and an increase of 14% was noted compared to 2016/17, which is 39% higher than in 2014/15. Imaging plays a key role in the assessment of patients with penetrating trauma.

Methods & Materials: A retrospective study of cases with stab wound injury to chest between March 2016 to March 2017 was conducted at a DGH. CT scans of all patients with stab injuries were retrieved from H7 and were examined by an experienced thoracic radiologist for various pathologies. The traumatic injuries including pneumomediastinum, haematothorax, mediastinal injuries including oesophageal, tracheal, cardiac/ thoracic aortic injuries, arterial diaphragmatic injury, subcutaneous emphysema, pulmonary contusion/ laceration, ribs fracture, peri cardiac haematoma, spinal cord injury and foreign bodies like the knife blade were included. The poster illustrates the mechanism of injury and resultant trauma in these cases.

Results: A total of 52 patients with various traumatic stab chest injuries were identified. All the patients were male between age groups of 17 to 52 years. For almost all patients, frontal chest radiograph remains the primary examination followed by MDCT. The number of various traumatic injuries included pneumomediastinum (6), haematothorax (6), mediastinal injuries including oesophageal, tracheal, cardiac/ thoracic aortic injuries, arterial diaphragmatic injury (66), subcutaneous emphysema (10), pulmonary contusion/ laceration (6), ribs fracture (6), peri cardiac haematoma (11), spinal cord injury (11) and foreign bodies like knife blade (8). Most of the patients were stab to lateral and posterior chest wall.

Conclusion: Imaging plays a key role in the initial diagnostic workup and secondary assessment of potential treatment options. This pictorial review would help create a better understanding of mechanism of injury leading to detection of pathology and subsequent treatment. Important things to note in any penetrating thoracic trauma secondary to stab wound injury include; site, How many times patient is stabbed? and What is trajectory of knife injury?

References: 1. Grahame Allen; Lukas Audikas, 9 November 2018, Knife crime statistics, Number 5N4304.