Introduction
Acute appendicitis is a common condition in general radiology practice. The reported rate for appendicectomy with no appendicitis is 20-30%, which is lowered by imaging to 6% to 10%. With the lack of ionizing radiation, USG should be the investigation of choice. However, inconclusive diagnoses range from non-existent, 4% to 58.3%, in which case CT may be performed. This study aims to evaluate the accuracy of clinical suspicion in suspected acute appendicitis with USG performed, and utility of urgent CT after USG to confirm the diagnosis.

Objectives
1) Evaluate the accuracy of clinical suspicion in cases of USG performed for suspected acute appendicitis. 2) Identify the appropriateness of utility of CT in suspected acute appendicitis in which USG has been performed.

Methodology
Sample patients and their demographics were identified via RIS records. Their clinical notes, laboratory results, USG and CT images were retrospectively reviewed. According to the “Alvarado Score”, which is a clinical scoring system used in to diagnose appendicitis, the two most important factors of “tenderness in right lower quadrant (RLQ)” and “leukocytosis” were analyzed.

Result
71 patients (5-59 years old; average=31.2) with USG performed for clinically suspected acute appendicitis were recruited, in which 9 had pathologically-proven acute appendicitis. In these 71 patients, 24 (33.8%) had “RLQ tenderness and “leukocytosis” in Alvarado Score and 47 were clinically less strongly suspicious. In these 47 patients,
45 patients' final diagnoses were not appendicitis (NPV=95.7%). In the 9 patients with pathologically-proven acute appendicitis, 3 (33%) were sonographically negative, related to technical difficulty of retrocaecal location of appendix, obscuration by abundant bowel gas and complexed echogenicity of a dermoid cyst. There were 8 sonographically positive cases, in which 6 (PPV=75%) were pathologically proven, and 2 having final diagnosis of mesenteric adenitis and non-specific pain. 19 (26.8%) patients had CT within 24 hours. 3 (15.8%) patients had CT features of acute appendicitis that were sonographically occult; 11 (57.9%) had no CT features of significant intra-abdominal pathology, 2 (1.5%) had colitis, 1 (5.3%) had diverticulitis, 1 (5.3%) had mesenteric adenitis, and 1 (5.3%) complicated ovarian cyst. In conclusion, NPV of Alvarado score is high in excluding acute appendicitis. Additional information provided by USG does further improve the diagnostic accuracy of acute appendicitis. If symptoms persist despite negative sonographic findings, CT may be warranted to confirm the diagnosis. However in adherence to ALARA principle, a high threshold for CT utilization in clinically suspected appendicitis is recommended.