Diagnostic Imaging Pathways - Cholecystitis (Acalculous, Suspected Acute)

Population Covered By The Guidance

This pathway provides guidance for appropriate imaging investigation of critically ill patients in the Intensive Care Unit (ICU) setting presenting with right upper quadrant pain or when acute acalculous cholecystitis is suspected.

Date reviewed: February 2015

Date of next review: 2017/2018

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Quick User Guide

Move the mouse cursor over the PINK text boxes inside the flow chart to bring up a pop up box with salient points.
Clicking on the PINK text box will bring up the full text.
The relative radiation level (RRL) of each imaging investigation is displayed in the pop up box.

SYMBOL	RRL	EFFECTIVE DOSE RANGE
	None	0
	Minimal	< 1 millisieverts
	Low	1-5 mSv
	Medium	5-10 mSv
	High	>10 mSv

Pathway Diagram

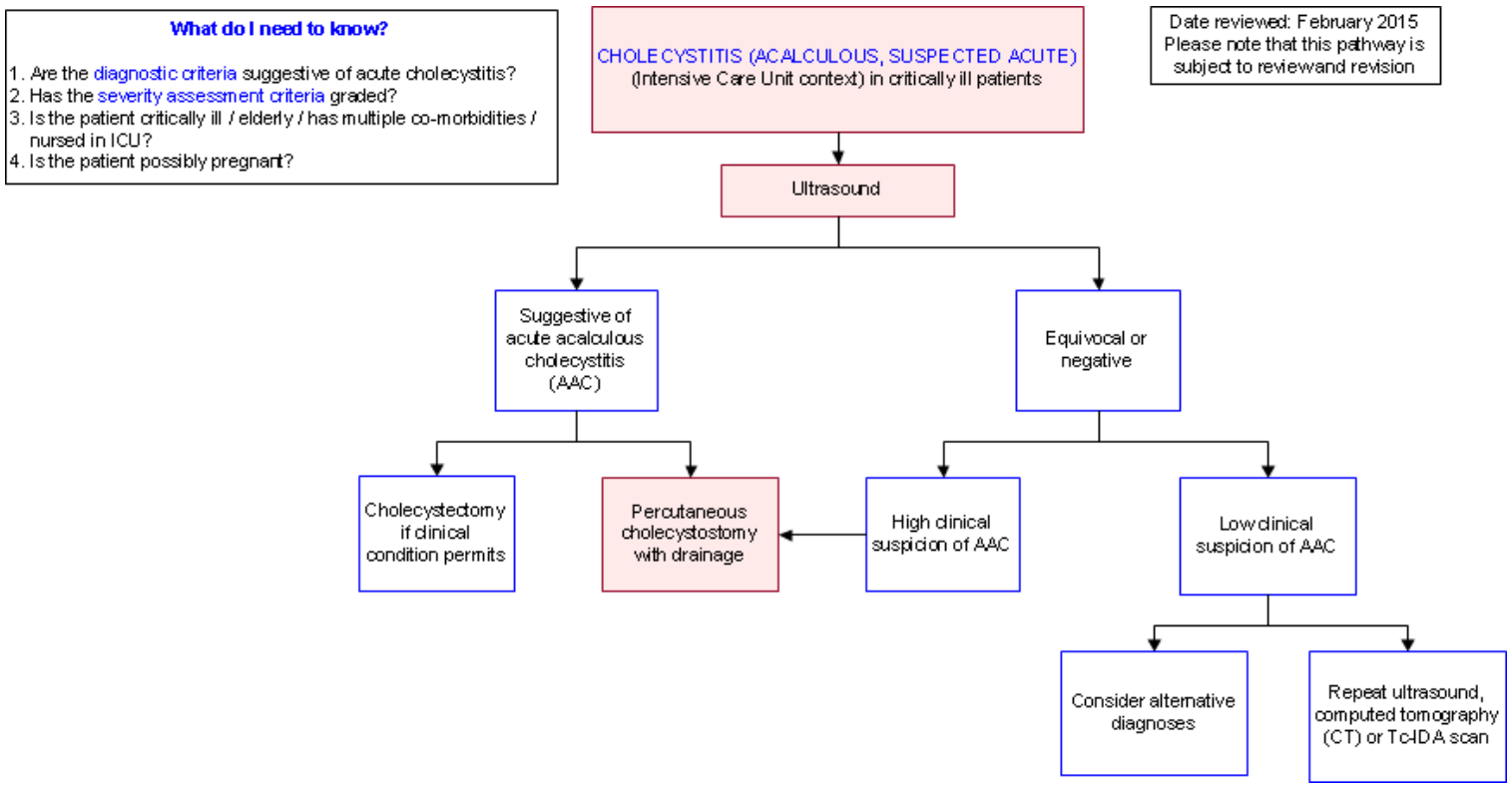

Image Gallery

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Teaching Points

- Ultrasound is of limited use since in intensive care unit patients it has low specificity 1; gallbladder abnormalities are frequently seen on ultrasound in intensive care patients who do not have suspected AAC. 2 This is also true of CT. 3 Cholescintigraphy is also associated with false negative and false positive results in suspected AAC 4
- Percutaneous cholecystostomy (PC) and drainage can be both diagnostic and therapeutic in AAC 5

Suspected Acute Acalculous Cholecystitis (AAC)

- AAC is a complication of severe morbidity when primary diagnosis is not acute cholecystitis
- This is a serious condition that typically occurs in critically ill patients with severe comorbidities, usually in the intensive care environment. In this setting, AAC is difficult to diagnose

Percutaneous Cholecystostomy (PC)

- Percutaneous cholecystostomy (PC) and drainage can be both diagnostic and therapeutic in AAC. Essentially, a successful 'trial of therapy' by PC is presumptive of the diagnosis of AAC. A

subsequent delayed cholecystectomy may not be required

References

Date of literature search: February 2015

The search methodology is available on request. Email

References are graded from Level I to V according to the Oxford Centre for Evidence-Based Medicine, Levels of Evidence. Download the document

1. Puc MM, Tran HS, Wry PW, Ross SE. **Ultrasound is not a useful screening tool for acute acalculous cholecystitis in critically ill trauma patients**. Am Surg. 2002;68(1):65-9. (Level III evidence). View the reference
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3. Ahvenjarvi L, Koivukangas V, Jartti A, Ohtonen P, Saarnio J, Syrjala H, et al. **Diagnostic accuracy of computed tomography imaging of surgically treated acute acalculous cholecystitis in critically ill patients**. J Trauma. 2011;70(1):183-8. (Level III evidence). View the reference
4. Ziessman HA. **Nuclear medicine hepatobiliary imaging**. Clin Gastroenterol Hepatol. 2010;8(2):111-6. (Review article). View the reference
5. Chung YH, Choi ER, Kim KM, Kim MJ, Lee JK, Lee KT, et al. **Can percutaneous cholecystostomy be a definitive management for acute acalculous cholecystitis?** J Clin Gastroenterol. 2012;46(3):216-9. (Level IV evidence). View the reference

Information for Consumers

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	Pregnancy Radiation Risk of Medical Imaging for Adults and Children Ultrasound Nuclear Medicine

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