

Greater Manchester Cancer guidelines for malignant biliary obstruction

Purpose:

To provide guidelines for the optimal approach to drainage of malignant biliary tract obstruction to ensure that every patient in the Greater Manchester region receives optimal and equal treatment

Clinical Scenario	Surgery or drainage	Preferred drainage approach	Optimum drainage strategy	Type of stent	Second and third-line approaches	Hospitals undertaking preferred approach
1. Proximal biliary obstruction due to perihilar cholangiocarcinoma (patient inoperable)	Drainage	PTC or ERCP	Bilateral if good prognosis. Should cross ampulla. Obtain tissue.	Uncovered Metal Stents	The other. Consider BSC without drainage if short life expectancy	MFT, PAT, SRI, THE CHRISTIE
2. Proximal biliary obstruction due to perihilar cholangiocarcinoma (patient operable)	Consider surgery-first but drainage often required	PTC or ERCP	Place in FLR and internalise	8-10F plastic stents	The other.	MFT
3. Biliary obstruction due to extrinsic compression, e.g. portal lymph nodes	Drainage	Treat as for scenario 1 and 2 depending on level of obstruction	Avoid metal stents in lymphoma			MFT, Christie
4. Distal Biliary obstruction due to pancreatic or periampullary tumours (patient inoperable)	Drainage	ERCP		LAPC: Fully Covered short Metal Stents Metastatic: short Metal Stents	PTC	All
5. Distal biliary obstruction due to pancreatic or periampullary tumours (patient operable)	Fast-track surgery	N/A	N/A	N/A	2: ERCP with Fully Covered short Metal Stents 3: PTC if ERCP-failure due to no access to tumour	All (after MDT or discussion with on-call HPB surgeon)

MFT Recommendations for antimicrobial prophylaxis for HPB Endoscopic and Radiological interventions

Procedure	1 st Line	Alternative in penicillin allergy			MRSA colonised	Post-procedure doses
		Delayed non-severe	Delayed severe	Type 1		
Biliary sepsis / Cholangitis (Treatment)	1 st line: Co-amoxiclav 1.2g IV TDS 2 nd line: Piperacillin/tazobactam 4.5g IV TDS	Cefuroxime 1.5g IV TDS + Metronidazole 500mg IV TDS	Tigecycline 100mg IV STAT then 50mg IV BD		N/A	7 – 10 days total Oral stepdown when appropriate: Co-amoxiclav OR Ciprofloxacin + Metronidazole
ERCP – No evidence of infection / cholangitis	No routine antibiotic prophylaxis required.				Gentamicin 120mg IV to cover MRSA. If contra-indicated, add Teicoplanin 400mg IV	No further doses if complete drainage achieved. If incomplete drainage: Co-amoxiclav 625mg PO TDS or Ciprofloxacin 500mg PO BD until complete drainage.
ERCP in higher risk* patients; EUS-guided biliary drainage (EUS-BD)	Gentamicin 120mg IV STAT For patients where gentamicin contra-indicated: Ciprofloxacin 750mg PO 60-90mins pre-procedure					
Percutaneous transhepatic cholangiogram (PTC)	Gentamicin 120mg IV STAT For patients where gentamicin contra-indicated: Co-amoxiclav 1.2g IV STAT	Cefuroxime 1.5g IV STAT (if Gentamicin contra-indicated)	Tigecycline 100mg STAT (only if severe penicillin allergy AND gentamicin contra-indicated)			
Febrile post-ERCP/EUS-BD/PTC	Co-amoxiclav 1.2g IV TDS	Cefuroxime 1.5 IV TDS OR Gentamicin 5mg/kg IV STAT	Gentamicin 5mg/kg IV STAT OR Tigecycline 100mg STAT if gentamicin contra-indicated		Stop at 24-48hrs if no further evidence of infection; Otherwise treat as cholangitis as above.	

* The BSG recommended that the following groups of patients receive routine antibiotic prophylaxis; patients with biliary disorders, such as primary sclerosing cholangitis or hilar cholangiocarcinoma, patients with a history of liver transplantation; patients with pancreatic pseudocyst; patients with severe neutropenia (<0.5x10⁹/L) and/or advanced haematological malignancy. Incomplete drainage is also a risk factor for infection post procedure.

Also consider routine antibiotic prophylaxis in those patients with history of previous biliary interventions.

Additional information

For patients with a current systemic or localised (e.g. a wound site or radiologically-placed drain) CPE infection, additional prophylaxis against CPE is strongly recommended. CPE prophylaxis is also recommended for those patients colonised with CPE, or who have had a previous history of colonisation (even if most recent screen is negative). Due to the variable sensitivity patterns of these organisms, microbiology **must** be contacted for advice on a suitable regime for prophylaxis.

Terms of Reference

Purpose:

To devise guidelines for the optimal approach to drainage of malignant biliary tract obstruction to ensure that every patient in the Greater Manchester region receives optimal and equal treatment

Method:

To provide evidence-based consensus guidelines for a set of clinical scenarios. For each scenario, provide answers to the following questions:

- a) Is biliary drainage or surgery without prior drainage preferable?
- b) If drainage, which approach is preferred: PTC, ERCP, or EUS?
- c) What are the second and third-line approaches in the event of failure?
- d) Describe the optimum drainage strategy.
- e) If a stent is to be used, specify if plastic or metal, covered or uncovered and its length.
- f) What is the antibiotic prophylaxis regimen for each approach?
- g) In which hospitals should these procedures take place?

Clinical Scenarios:

1. Proximal biliary obstruction due to perihilar cholangiocarcinoma (patient inoperable)
2. Proximal biliary obstruction due to perihilar cholangiocarcinoma (patient operable)
3. Biliary obstruction due to extrinsic compression, e.g. portal lymph nodes
4. Distal Biliary obstruction due to pancreatic or periampullary tumours(patient inoperable)
5. Distal biliary obstruction due to pancreatic or periampullary tumours(patient operable)

Guidelines proposed by Greater Manchester Cancer Sub-group* on Malignant biliary Obstruction on 12th September 2017 and agreed at HPB Pathway Board on 6th March 2018

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