PEER REVIEW HISTORY

BMJ Open publishes all reviews undertaken for accepted manuscripts. Reviewers are asked to complete a checklist review form (http://bmjopen.bmj.com/site/about/resources/checklist.pdf) and are provided with free text boxes to elaborate on their assessment. These free text comments are reproduced below.

ARTICLE DETAILS

TITLE (PROVISIONAL)	A Phase III Randomized Clinical trial of Perioperative therapy	
	(Neoadjuvant chemotherapy v/s chemoradiotherapy) in locally	
	advanced gall bladder cancers(POLCAGB) - Study Protocol	
AUTHORS	Engineer, Reena; Patkar, Shraddha; Lewis, Shirley; Sharma, Ashutosh; Shetty, Nitin; Ostwal, Vikas; Ramaswamy, Anant; Chopra, Supriya; Agrawal, Archi; Patil, Prachi; Mehta, Shaesta; Goel, Mahesh	

VERSION 1 - REVIEW

REVIEWER	Passot
	lyon sud france
REVIEW RETURNED	20-Dec-2018

GENERAL COMMENTS	This study protocol address an important point, however, few comments could be adressed:
	- Do the authors considere pathological diagnosis prior to neoadjuvant chemotherapy? It is mandatory most of the time. If so,
	it has to be reported and the way of biospy is also important
	(through liver parentchyma, endoscopically)
	- For patients who will undergo surgery, pathological response to preoperative chemotherapy should analysed
	-A major goal is the resectability. The authors should compared final resectability in both group, complete resection. Intent to treat analysis should be perfored along with survival for patients who underg surgery
	-It is not clear why the authors evaluate survival since the date of randomization, this time does not correspond to disease evolution.
	They should either choose date of diagnosis (on pathology), or
	date of first neoadj treatement.

REVIEWER	Fuyuhiko Motoi	
	Tohoku University, Japan	
REVIEW RETURNED 11-Jan-2019		

GENERAL COMMENTS	My major concern of this protocol is whether the standard treatment of the targets is neoadjuvant treatment. Based on the
	reference the authors cited, the median survival of upfront surgery was ranging 17 months (ref 4) or 18 months (ref 5). However the authors described the median survival time of control arm

(neoadjuvant chemotherapy) and test arm (neoadjuvant
chemoradiotherapy) were estimated for 11 months and 16.5
months respectively. Although neoadjuvant therapy might be
promising for advanced gallbladder cancer, it has not been
established as standard strategy. In that situation, I recommend
the protocol would be better to set randomized phase II study to
evaluate R0 resection rate of both arm (selection design) before
comparison to upfront surgery. Overall survival should be
measured as secondary endopoint.

REVIEWER	Lillian Kao	
	McGovern Medical School at University of Texas Health Science	
	Center at Houston United States	
REVIEW RETURNED	24-Feb-2019	

GENERAL COMMENTS

Engineer et al report the study protocol for a randomized trial of neoadjuvant chemoradiation versus chemotherapy for locally advanced gallbladder cancer.

The authors should be commended for studying this important question using a randomized trial and for recording both clinical and patient-reported outcomes (such as quality of life).

Major comment:

- 1. The biggest question is that of feasibility of answering the question as posed.
- a) The authors do not provide any details regarding how many patients they see with locally advanced gallbladder cancer per year. Furthermore, it would be helpful to know what proportion of those patients would meet study enrollment criteria.
- b) According to clinicaltrials.gov, the trial has been ongoing since August 2016. In the protocol, the authors state that they expected enrollment to occur over the first 3 years of the trial, which will be up in just a few months. The authors allude to a slow recruitment of patients, but do not describe how many patients have been enrolled up until this point and how this affects the timeline and likelihood of completion for the trial.
- c) Slow recruitment is a fact of life in the world of clinical trials. Given that, what do the authors plan to do? Do they have any criteria for declaring futility in being able to answer the question? Do they have any plans to enlist other centers to enroll patients? Do they plan to do alternative analyses such as Bayesian analyses that may more easily accommodate small sample sizes? What is their plan?

Minor comments:

- 2) The reporting seems reasonable, but explicitly alluding to the CONSORT criteria and checklist would be helpful.
- 3) The study design states that stratification will be by T stage, and it lists T1-T4 -- should this really just be T3 or T4 given the inclusion criteria?
- 4) In adjudicating the outcome of completeness of resection, how will non-surgical candidates be accounted for?
- 5) The authors state that the study will redefine the current standard of care for locally advanced gallbladder disease. Since this is a one-center trial being conducted in India, can the authors describe how their patient population and their treatment

algorithms compare to those worldwide? Do the authors expect their results to be widely generalizable? 6) Unless I missed them, I did not see the NCT number (although I found it online) or the dates of the planned study in the manuscript.
found it online) or the dates of the planned study in the manuscript (as required by the editors for protocols).

VERSION 1 – AUTHOR RESPONSE

Response from Authors

Reviewer 1

1	Do the authors consider pathological diagnosis prior to neoadjuvant chemotherapy? It is mandatory most of the time. If so, it has to be reported and the way of biospy is also important (through liver parentchyma, endoscopically)	Yes an additional sentence about the biopsy has been added on page 6 para 2
2	For patients who will undergo surgery,	A sentence has been added on Page 12 para 1
	pathological response to preoperative	"Pathological response rate in both arms would
	chemotherapy should analysed	also be assessed"
3	A major goal is the resectability. The	This has been mentioned on page 12 para 1
	authors should compare final	A sentence has been added on page 13 last
	resectability in both group, complete	para
	resection. Intent to treat analysis should	Intent to treat analysis will be performed along
	be performed along with survival for	with survival for patients who undergo surgery
	patients who undergo surgery	
4	It is not clear why the authors evaluate	Date of randomization would be close to the first
	survival since the date of randomization,	neoadjuvant treatment hence would not be any
	this time does not correspond to disease	much different than the date of diagnosis
	evolution. They should either choose	
	date of diagnosis (on pathology), or date	
	of first neoadj treatment	

	,			
Reviev	Reviewer 2			
5	whether the standard treatment of the targets is neoadjuvant treatment	Given the aggressive biology and poor outcomes of these patients the standard treatment at our hospital is neoadjuvant chemotherapy followed by assessment for surgery.		
6	Based on the reference the authors cited, the median survival of upfront surgery was ranging 17 months (ref 4) or 18 months (ref 5). However the authors described the median survival time of control arm (neoadjuvant chemotherapy) and test arm (neoadjuvant chemoradiotherapy) were estimated for 11 months and 16.5 months respectively. Although neoadjuvant therapy might be promising for advanced gallbladder cancer, it has not been established as standard strategy.	This estimation was based on ABC 02 study the median survival for these patients were 11 months The study published from our centre (having a short follow up) where neoadjuvant chemotherapy followed by surgery had MOS of 13 months (Sirohi et al 2015). Whereas the MOS of 16.5 months is estimated on the basis of a prospective study (Engineer et al 2016 Ann of surg. Oncol) using neoadjuvant chemoradiation where we observed a MOS of 20 months		

In that situation, I recommend the	
protocol would be better to set	
randomized phase II study to evaluate	
R0 resection rate of both arm (selection	
design) before comparison to upfront	
surgery. Overall survival should be	
measured as secondary end point.	

Reviewer 3

Keviev	Reviewer 3			
7	a) The authors do not provide any	We see approximately 1000 case of Gall bladder		
	details regarding how many patients	cancer per year. Of these approximately 150		
	they see with locally advanced	cases are locally advanced and meet the		
	gallbladder cancer per year.	enrollment criteria.		
	Furthermore, it would be helpful to know			
	what proportion of those patients would			
	meet study enrollment criteria.			
8	b) According to clinicaltrials.gov, the	Though the study was approved in August 2016,		
	trial has been ongoing since August	we accrued our first patient in November 2016.		
	2016. In the protocol, the authors state	We have accrued only 67 patients till now.		
	that they expected enrollment to occur			
	over the first 3 years of the trial, which			
	will be up in just a few months. The			
	authors allude to a slow recruitment of			
	patients, but do not describe how many			
	patients have been enrolled up until this			
	point and how this affects the timeline			
	and likelihood of completion for the trial.			
9	c) Slow recruitment is a fact of life in the	Due to this slow recruitment the study has been		
	world of clinical trials. Given that, what	made multicentric and other centers in India (at		
	do the authors plan to do? Do they have	least 3) where this disease is endemic are in the		
	any criteria for declaring futility in being	process of obtaining ethical approval from their		
	able to answer the question? Do they	respective institutions.		
	have any plans to enlist other centers to			
	enroll patients? Do they plan to do			
	alternative analyses such as Bayesian			
	analyses that may more easily			
	accommodate small sample sizes?			
	What is their plan?			
10	2) The reporting seems reasonable, but	The checklist as per CONSORT can be made if		
	explicitly alluding to the CONSORT	the editors suggest. Will it increase the word limit		
	criteria and checklist would be helpful.	?		
11	3) The study design states that	T1-T2 tumors having node positive disease will		
	stratification will be by T stage, and it	be included		
	lists T1-T4 should this really just be T3			
	or T4 given the inclusion criteria?			
12	4) In adjudicating the outcome of	Patients not undergoing surgery will be		
	completeness of resection, how will non-	separately analyzed since the primary outcome		
	surgical candidates be accounted for?	is overall survival.		
13	5) The authors state that the study will	Since the study is being made multicentric,		
	redefine the current standard of care for	hopefully it will be applicable to the patients		
	locally advanced gallbladder disease.	where this disease is common.		
	Since this is a one-center trial being			

	conducted in India, can the authors describe how their patient population and their treatment algorithms compare to those worldwide? Do the authors expect their results to be widely	
14	generalizable? 6) Unless I missed them, I did not see the NCT number (although I found it online) or the dates of the planned study in the manuscript (as required by the editors for protocols).	ClinicalTrials.gov (NCT02867865) has been added at the end of abstract

VERSION 2 – REVIEW

REVIEWER	Fuyuhiko Motoi		
	Tohoku University (Japan)		
REVIEW RETURNED	03-Apr-2019		
GENERAL COMMENTS	The manuscript is adequately revised according to the reviewer's comment.		
REVIEWER	Lillian Kao McGovern Medical School at the University of Texas Health Science Center at Houston		
REVIEW RETURNED	06-Apr-2019		
GENERAL COMMENTS	The clarifications have improved the manuscript. The authors should be congratulated for conducting a randomized trial in locally advanced gallbladder cancer. The authors may want to give additional thought to strategies for increasing patient enrollment if the addition of 3 more centers is not sufficient to ensure adequate sample size and power for their primary outcome.		