The role of multidisciplinary meetings for benign pancreatobiliary diseases: a tertiary centre experience

Noor L H Bakkali,¹ Sam Murray,¹ Lesley Winter,¹ Vinay Sehgal,¹ George J M Webster,¹ Michael H Chapman,¹ Steven Bandula,² Zahir Amin,² Samantha Read,² Stephen P Pereira,¹ Gavin J Johnson¹

¹Department of Pancreato-Biliary Diseases, University College London Hospital, London, UK

²Department of Radiology, University College London Hospital, London, UK

Correspondence to

Dr Gavin J Johnson, GI-services, UCLH, 250 Euston Road, London NW1 2PG, UK; gavin.johnson@uclh.nhs.uk

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ABSTRACT

Multidisciplinary meetings are central to the management of chronic and complex diseases and they have become widely established across the modern healthcare. Patients with pancreatobiliary diseases can often present with complex clinical dilemmas, which fall out with the scope of current guidelines. Therefore, these patients require a personalised management approach discussed in a multidisciplinary meeting.

INTRODUCTION

Multidisciplinary meetings (MDMs) are central to the management of chronic and complex diseases and they have become widely established across the modern healthcare.^{1–3} They have been key in providing effective and transparent management decisions through the cancer networks, and their role is now increasingly being used in benign disease. Patients with pancreatobiliary (PB) diseases can often present with complex clinical dilemmas, which fall out with the scope of current guidelines. Therefore, these patients require a personalised management approach.

The incidence of many PB disorders is expected to rise as their aetiology is related to obesity and higher alcohol consumption.⁴ There is also rapidly developing diagnostic and therapeutic procedures for these patients such as advanced endoscopy/ERCP, radio frequency ablation and cholangioscopy. These interventions carry significant risks, and in the context of benign disease a well-considered

management plan previously discussed in an MDM and agreed by all stakeholders is essential.^{5–10} The number of patients referred to our MDM has doubled over 5 years' time (figure 1).

In 2014, The British Society of Gastroenterology (BSG) published on the key factors ERCP training and highlighted the importance of 'working efficiently in a multidisciplinary team'.¹ With the increasing incidence of PB diseases, more formalised training programme in medical pancreaticology is needed. A new curriculum was therefore proposed in November 2014 to the Joint Royal Colleges of Physicians Training Board and the BSG.¹¹

BENIGN PB DISEASES

Our unit has had approximately 750 newly referred and 1800 follow-up patients per year in both 2014 and 2015. Many of these patients are discussed in the benign MDT for various conditions; see random 6 weeks' MDM in table 1.

Acute pancreatitis complicated by infected collections, which occurs in 1% of cases, requires discussion by intensivists, radiologists, surgeons and endoscopists to consider the most effective method of drainage to manage sick patients.

Indeterminant biliary strictures in primary sclerosing cholangitis or IgG4 cholangiopathy can be diagnostically challenging and require review with the radiologists, histopathologists and

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Figure 1 The number of patients referred.

endoscopists to achieve an agreed diagnosis and intervention.

Finally, patients with functional disorders such as Sphincter of Oddi dysfunction require careful discussion and evaluation to decide whether endoscopic interventions are in the patient's best interest considering the associated significant risk of complications. An agreed decision by the whole team can then be explained to the patient with the weight of the expertise behind it.

THE MULTIDISCIPLINARY TEAM

The MDM team in our centre consists of radiologists, gastroenterologists, surgeons, gastroenterology and radiology registrars, a clinical nurse specialist and a histopathologist (figure 2).

Not surprisingly, a good team climate does translate to better decisions.¹² Contrary to previous reports and expectations, more effective decision making is not necessarily associated with the involvement of more opinions from different team members.¹³ Although each member can bring relevant information, diversity may also bring communication barriers because of difference in knowledge, skills or abilities. To optimise the meeting further, structured communication and focused leadership were shown to be essential.^{14 15} Last but not least, evidently assembling patient list before meeting and prediscuss them led to more explicit decision making.¹³

The MDM should encourage referrers to attend the meetings in order to help achieve a personalised management decision for the patient. The most senior consultant leads the meeting to ensure a good focus on each case. Before and after the meeting all patients are discussed between consultant/senior fellow and the nurse specialist to confirm how the outcome will be actioned.

THE PRE-MDM REVIEW

Internal referrals are emailed to the Clinical Nurse Specialist. External referrals are registered by the pathway co-ordinator and any correspondence, relevant imaging and histology gathered. The cases are reviewed prior to the meeting with an aim to limit the total number to around 30. This leads to a more efficient and effective meeting. The weekly meeting is attended by the PB consultants, HPB surgeons, HPB radiologists and histopathologists. The training doctors and clinical nurse specialist assist in presenting the cases and documenting the MDT's findings and action plans. These outcomes are then uploaded on to the electronic patient record for future reference. Directly after the MDM, the nurse specialist reviews all patients with the consultant in charge to ensure all outcomes are being actioned.

ADVANTAGES OF AN MDM

One of the advantages is providing specialised multidisciplinary services for local and referred patients over a wide geographical area. The number of patients referred to our MDM service doubled over 5 years' time even without the advent of teleconferencing, which most likely would further increase referrals. As the MDM takes place on a weekly basis, clinical delay is prevented and this also allows urgent cases (inpatients locally or from other centres) to be discussed. Moreover, it makes it possible for the team to discuss cases and review their images even before seeing the patients in clinic. This consequently leads to a clear plan when the patient is seen in the outpatient clinic. For patients discussed from long-distance areas we have the possibility of informing them about the

Table 1 Random case load of benign pancreatobiliary diseases during a consecutive 6 weeks of multidisciplinary meetings

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6
Acute pancreatitis	2	4	1	1	1	0
Chronic pancreatitis	5	4	2	4	2	0
Strictures (IgG4/primary sclerosing cholangitis)	9	3	10	2	7	4
Cholecystolithiasis	2	5	4	0	3	2
Choledocholithiasis (ERCP/EHL/lithotripsy)	5	3	2	6	6	6
Cystic lesions	4	5	3	4	2	3
Ampullary/duodenal polyps	1	0	0	0	1	1
Sphincter of Oddi dysfunction	1	1	1	0	0	2
Lap-assisted ERCP	1	0	0	0	0	0

Figure 2 The benign pancreatobiliary MDM.

outcome through our telephone clinic, which reduces administrative costs and avoids unnecessary patient travelling. Our unit has previously reported excellent patient satisfaction and convenience with our tertiary referral telephone clinic.¹⁶

Another significant advantage of MDTs is the teaching opportunities it provides. The entire process of presenting cases, review radiological images or histology on site and accordingly going through the decision-making process and frank exchange of ideas in such an open forum is extremely educational and useful. An internal departmental survey among our junior doctors was very positive with appreciation of improving radiological knowledge and decision-making processes.

DISADVANTAGES OF AN MDM: WORKLOAD AND COSTS

The CNS spends four programme activities/0.4 full-time equivalents (FTE) organising and collecting the patients to the correct MDM date. The PA spends at least two programme activities/0.2 FTE registering, scanning and requesting lacking images. The consultants spend 0.5 programme activity attending the MDM. As all consultants are expected to attend the meeting as well as HPB radiologists, the CNS and the registrars, it requires a one-day departmental administrator time every week. Unfortunately, there is no guideline to how to financially accommodate or facilitate MDMs in tertiary centres. Current practice is reliant on goodwill and professional duty of care and is not a sustainable solution to the ever-increasing workload of MDMs in the long term.

FUTURE PERSPECTIVE

Tertiary centres providing MDM services should be funded accordingly to further ameliorate their service

such as video conferencing, setting up more research projects, employing more nurse specialists and providing subspecialty curricula to train future subspecialists. This should be prioritised as many specialties including colorectal and pancreatic disease teams have shown better quality and improved patient care following a dedicated MDM plan.^{17 18}

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REFERENCES

- 1 National Cancer Action Team. *National cancer peer review programme manual for cancer services: haemato-oncology cancer measures*. London: National Cancer Action Team, 2013.
- 2 Department of Health. *Mental health policy implementation guide*. London: Department of Health, 2001.
- 3 Walker D, Kemp E. *A guide for review and improvement of hospital based heart failure services*. London: NHS Improvement, 2011.
- 4 Martínez J, Johnson CD, Sánchez-Payá J, *et al*. Obesity is a definitive risk factor of severity and mortality in acute pancreatitis: an updated meta-analysis. *Pancreatology* 2006;6:206–9.
- 5 Besselink MG, van Santvoort HC, Boermeester MA, *et al*. Timing and impact of infections in acute pancreatitis. *Br J Surg* 2009;96:267–73.
- 6 Wu BU, Johannes RS, Kurtz S, *et al*. The impact of hospital-acquired infection on outcome in acute pancreatitis. *Gastroenterology* 2008;135:816–20.
- 7 Rodríguez JR, Razo AO, Targarona J, *et al*. Debridement and closed packing for sterile or infected necrotizing pancreatitis: insights into indications and outcomes in 167 patients. *Ann Surg* 2008;247:294–9. doi: The New England Journal of Medicine
- 8 van Santvoort HC, Bakker OJ, Bollen TL, *et al*. A conservative and minimally invasive approach to necrotizing pancreatitis improves outcome. *Gastroenterology* 2011;141:1254–63.
- 9 van Santvoort HC, Besselink MG, Bakker OJ, *et al*. A step-up approach or open necrosectomy for necrotizing pancreatitis. *N Engl J Med* 2010;362:1491–502.
- 10 Banks PA, Bollen TL, Dervenis C, *et al*. Acute Pancreatitis Classification Working Group. Classification of acute pancreatitis—2012: revision of the Atlanta classification and definitions by international consensus. *Gut* 2013;62:102–11.
- 11 <http://www.bsg.org.uk/clinical/news/ercp-%E2%80%9393-the-way-forward-a-standards-framework.html>
- 12 Hart A, Johnson G, Huggett M. Do we need a subspecialty curriculum for training in pancreaticobiliary medicine in the UK? *Frontline Gastroenterol* 2015;6:175–7.
- 13 Gonzalez-Roma V, Gamero N. Does positive team mood mediate the relationship between team climate and team performance? *Psicothema* 2012;19:325–58.
- 14 Raine R, Xanthopoulos P, Wallace I, *et al*. Determinants of treatment plan implementation in multidisciplinary team meetings for patients with chronic diseases: a mixed-methods study. *BMJ Qual Saf* 2014;23:867–76.

- 15 Van Knippenberg D, Dawson JF, West MA, *et al.* Diversity faultlines, shared objectives, and top management team performance. *Hum Relations* 2011;64:307–36.
- 16 Sehgal V, Krishnan B, Kumar M, *et al.* A new pancreatobiliary telephone clinic service-improved service delivery, efficiency and patient experience. *Gut* 2013;62 (Suppl 1):A1–306.
- 17 Vaughan-Shaw PG, Wheeler JM, Borley NR, *et al.* The impact of a dedicated multidisciplinary team on the management of early rectal cancer. *Colorectal Dis* 2015;17:704–9.
- 18 van Rijssen LB, van der Geest LG, Bollen TL, *et al.* National compliance to an evidence-based multidisciplinary guideline on pancreatic and peri-ampullary carcinoma. *Pancreatology* 2016;16:133–7.