



# Photodynamic Diagnosis (PDD) and Non-Muscle Invasive Bladder Cancer (NMIBC): Just Hype Orreal Long Term Benefits

Rahul Gujadhur and Rakesh Heer\*

Northern Institute for Cancer Research, Newcastle University, UK

## Letter to Editor

With an annual UK incidence in excess of 10,000 cases, the management of bladder cancer remains a significant clinical, financial, logistical and administrative challenge. Of these cases, 80% are non-muscle invasive (NMIBC) category [1]. Current data demonstrate recurrence rates between 31% - 78% and progression rates of 0.8% to 45% depending on initial tumour characteristics [2,3]. There has, therefore, been significant interest in centres worldwide to improve management of NMIBC in terms of early detection and preventing recurrence. Several strategies have been tried and are currently in use to bring about the highly desired outcome of low recurrence and reduced progression and over the past two decades, advances in technology have enabled the availability of new biomarkers and imaging techniques to enhance the management of NMIBC. New, promising, imaging modalities include Blue Light Cystoscopy (BLC) also referred to as photodynamic diagnosis (PDD), optical coherence tomography, narrow band imaging and confocal laser end microscopy [4,5]. Amongst the newer imaging modalities, currently available results position PDD as a forerunner, having demonstrated the benefits of blue light cystoscopy in the short term in a number of RCTs. As a result, several guidelines have endorsed the use of PDD in the management of NMIBC. However there is wide variation in the recommended applications of PDD amongst these guidelines. This is because long term prospective data from well controlled randomised trials about PDD and its effect on recurrence, progression, economic benefits and effects on quality of life is lacking and this has led to different interpretations. There is currently an on going Health Technology Assessment, funded by the National Institute for Health Research (NIHR), called "PHOTO" that aims to bridge this evidence gap. This large, pragmatic, UK multicentre RCT will answer the question: Should we adopt PDD in routine practice despite higher initial costs for longer term gains? The outcome of this trial is pertinent in the contemporary healthcare service setting, where costs are mounting and there is greater scrutiny in the adoption of new technologies in state funded healthcare systems. This would also avoid a piecemeal adoption of BLC, which is currently the case, and provide more robust evidence towards full widespread implantation or disinvestment, pending the results of the trial.

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### \*Correspondence:

Rakesh Heer, Northern Institute  
for Cancer Research, Newcastle  
University, UK,

E-mail: rakesh.heer@newcastle.ac.uk

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