Oncology bulletin

August 2025

The aim of this current awareness bulletin is to provide a digest of recent guidelines, reports, research and best practice on Oncology

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Cancer Treatments

Tumour-infiltrating lymphocyte therapy landscape: prospects and challenges

Tumour-infiltrating lymphocyte (TIL) therapy has emerged as a promising adoptive cell transfer strategy for solid tumours. The recent accelerated approval of lifileucel by the Food and Drug Administration marks a significant milestone in the clinical application of TIL therapy. This review comprehensively examines the historical development, biology, clinical efficacy, safety and limitations of TIL therapy. We explore advancements in TIL manufacturing, including novel culture techniques, genetic modifications and automation, to enhance scalability and effectiveness. Despite promising results, TIL therapy faces challenges such as high-dose interleukin-2 toxicity, complex manufacturing processes and immune evasion mechanisms. Emerging strategies, including checkpoint inhibitor combinations, engineered TIL constructs and metabolic reprogramming, aim to improve TIL therapeutic efficacy. This review provides insights into the evolving landscape of TIL therapy and its potential to enhance current cancer immunotherapy.
Ruqin Chen et al
BMJ Oncology 4 e000566 (open access)

Dosing immune-checkpoint inhibitors: Opportunities for the future

With recent breakthroughs in immunotherapy, particularly with the approval of immune checkpoint inhibitors for various cancer indications, patients now have a wider array of treatment options, even for those with metastatic disease. Still, the survival benefit of immune-checkpoint inhibitors is modest, and there is concern about drug toxicity. In addition, there is ongoing exploration into combination therapy involving immune-checkpoint inhibitors, which come at the risk of increased toxicity. Unfortunately, due to the cost of the currently approved doses and dosing intervals, many patients in the community in the United States and low- and middle-income countries lack access to these transformative therapies. Further, the observation of resistance to immune-checkpoint inhibitors and limitations of currently approved doses and dosing intervals warrants changes in

current practice. This review paper discusses both model-based and clinical studies in the current literature. Strategies for improving access to immune-checkpoint inhibitors and expanding their utilization, including weight-based dosing instead of fixed dosing, dose and dose interval adjustments, development of biomarkers and scoring systems for personalization of immune-checkpoint inhibitors, and alternative trial design, are discussed.
Won Jin Jeon et al
Current Problems in Cancer 57 101204

Commissioning Care

The National Referral Service for Proton Beam Therapy in England: A Journey Towards Equitable Access
Health care policies have frequently centred on ensuring equitable access within diverse populations. While new technologies have immense potential for improving health outcomes, they may not be necessarily available across varied geographical areas and socioeconomic backgrounds. The goal of this study is to analyse equity of access to Proton Beam Therapy (PBT) throughout England and how this has changed since the inception of a national PBT service in 2018.
S. Gaito et al
Clinical Oncology 44 103868

Diagnosis

Sensitivity of core needle biopsy in the diagnosis of lymphoma: A meta-analysis
Lymphoma commonly presents in the head and neck. Studies on the sensitivity of core needle biopsy (CNB) in diagnosing subtypes of lymphoma are mixed. We performed a metaanalysis of the existing literature to uncover the sensitivity of CNB in diagnosing lymphoma subtypes.
Chloe Cottone
Current Problems in Cancer 57 101203

Novel radiopharmaceuticals for molecular imaging of renal cell carcinoma
Conventional diagnostic strategies for imaging patients with renal cell carcinoma (RCC) have predominantly relied on ultrasonography, CT and MRI. However, a paradigm shift is underway with the emergence of several new radiotracers for molecular imaging.
Jasmin Weindler et al
BMJ Oncology 4 e000645 (open access)

General

Editorial (See article below)
Improving skin cancer prevention
Achieving behaviour change through tailored recommendations

Catherine M Olsen
BMJ 390 (3469) r1570

CLINICAL UPDATE
Skin cancer prevention and sunscreens
Anna Nicholson et al
BMJ 390 (3469) e085121

Specific Cancers

Biologics for novel driver altered non-small cell lung cancer: potential and pitfalls
Precision medicine has revolutionized clinical paradigm of lung cancer (LC) patients optimizing therapeuticaloptions on the basis of molecular fingerprinting of tumor cells.. In the rapidly evolving scenario of predictive biomarkers, mandatory testing genes demonstrated a statistically significant clinical benefit in LC patients elected to molecular tests, but emerging biomarkers are under investigation to raise the bar in the clinical management of LC patients. To date, promising IHC-based predictive biomarkers emerged as potentially integrative tools in the panel of clinically approved biomarkers. On this basis, genomic, transcriptomic and proteomic data are gaining ground toward "3D" biology" supporting the need of a multidimensional analysis of tumor cells to clinically stratify LC patients. Here we sought to overview the most promising biomarkers investigated in clinical trials to be integrated into diagnostic panel of predictive biomarkers tools for NSCLC patients.
Gianluca Russo
Critical Reviews in Oncology / Hematology 212 104748

Quality Indicators and Benchmarks for Radiotherapy in Lung Cancer: A Modified Delphi Approach
While there are many published quality indicators (QIs) for assessing clinical care in lung cancer, few specifically measure the quality of radiotherapy (RT). To address this gap, we used a structured modified Delphi technique to develop a core set of QIs and benchmarks to evaluate RT processes for lung cancer treatment.
K.-L. Chiew et al
Clinical Oncology 44 103886

Usage of immune checkpoint blockade in peritoneal mesothelioma: a systematic review of the literature
Despite widespread use of checkpoint inhibitors (CPIs) in pleural mesothelioma and other cancers, the use within peritoneal mesothelioma (PeM) is limited. As a result, their effectiveness in PeM remains undetermined. A systematic literature search was conducted to provide an overview of CPI usage and the effect on PeM.

Mitchell Emmers et al BMJ Connections Oncology 2 e000039
Ribociclib with an aromatase inhibitor for adjuvant treatment of hormone receptor-positive HER2-negative early breast cancer at high risk of Recurrence *Technology appraisal guidance* NICE TA 1086
Durvalumab with tremelimumab for untreated advanced or unresectable hepatocellular carcinoma Technology appraisal guidance NICE TA 1090
Tarlatamab for extensive-stage small-cell lung cancer after 2 or more treatments Technology appraisal guidance NICE TA 1091
Pembrolizumab with carboplatin and paclitaxel for untreated primary advanced or recurrent endometrial cancer Technology appraisal guidance NICE TA 1092
Survivorship
Survival disparities in women with endometrial cancer based on metastasis size in the sentinel lymph node: A tertiary cancer centre observational cohort study *The adoption of sentinel lymph node (SLN)-mapping with ultrastaging for patients with endometrial cancer has led to increased rates of metastatic nodal disease due to the detection of low-volume metastases (LVM), i.e. micrometastasis and isolated tumour cells (ITCs). Exploring their association with survival can aid risk stratification and personalised treatment approaches* C.M.D.S. Dattatreya et al European Journal of Obstetrics and Gynecology 312 114556