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直腸癌治療之最適化策略：從早期介入至完全術前放化療（TNT）與未來展望

Optimal Management of Rectal Cancer: From Early Treatment to TNT and Beyond

時　　間：115 年 6 月 27 日(星期六) 08:50~17:10
地　　點：臺北榮民總醫院 長青樓護理館
協辦單位：中華民國大腸直腸外科醫學會
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08:50-09:00	***Opening Remarks***	陳自諒理事長 William Tzu-Liang Chen
	座長：柯道維 主任 (Tao-Wei Ke)	
09:00-09:30	應用新型機器人輔助平台於大腸直腸外科手術(線上演講) Standardizing Rectal Cancer Surgery with the Hugo™ RAS System: The Single-Docking “HUGO-SWAP” Workflow (Online Presentation)	Takashi Nonaka (日本)
	座長：蔣鋒帆 主任 (Feng-Fan Chiang)	
09:30-10:00	機器手臂輔助手術於直腸癌之優勢：單孔 (Single-Port)與多孔 (Multi-Port) 系統之比較 (線上演講) Advantages of Robotic Surgery in Rectal Cancer: Single-Port vs. Multi-Port Systems (Online Presentation)	Sung Soo Yang (韓國)
	座長：黃文詩 副院長 (Wen-Shih Huang)	
10:00-10:30	從多孔到單孔：Xi、SP 與 TaTME 在機器人直腸手術演進中的整合策略 From Multiport to Single-Port: Integrating Xi, SP, and TaTME in the Evolution of Robotic Rectal Surgery	張譽耀主任 Yu-Yao Chang
10:30-10:40	***Coffee Break***	
	座長：謝寶秀 主任 (Pao-Shiu Hsieh)	
10:40-11:10	腸道吻合處滲漏之預防及處置 Prevention and Management of Anastomotic Leakage	岳德政院長 Te-Cheng Yueh
	座長：藍苑慈 教授 (Yuan-Tzu Lan)	
11:10-11:40	早期直腸癌的局部切除：從替代治療到風險分層管理 Local Excision in Early Rectal Cancer: From alternative Care to Risk Stratification	許詔文主任 Chao-Wen Hsu

座長：林宏鑫 醫師 (Hung-Hsin Lin)

Time	Topic	Speaker
11:40-12:10	骨盆腔廓清手術：挑戰極限與安全 Total Pelvic Exenteration (TPE): Challenging the Limits and Ensuring Safety	張巨成醫師 Chu-Cheng Chang

座長：林資琛 醫師 (Tzu-Chen Lin)

Time	Topic	Speaker
12:10-13:10	Luncheon Symposium	藍苑慈教授 Yuan-Tzu Lan

座長：王照元 醫師 (Jaw Yuan Wang)

Time	Topic	Speaker
13:30-14:00	從影像到臨床策略：MRI 如何影響直腸癌治療決策 From Image to Action: The Role of MRI in Rectal Cancer Decision-Making	柳建安醫師 Chien-An Liu

座長：李克釗 主任 (Ko-Chao Lee)

Time	Topic	Speaker
14:00-14:30	轉移性大腸直腸癌後線治療策略：臨床發展與最佳整合 Later-Line Treatment Strategies in Metastatic Colorectal Cancer: Clinical Development and Optimal Integration	坂東 英明 Hideaki Bando (日本)

座長：游正府 主任 (Jeng-Fu You)

Time	Topic	Speaker
14:30-15:00	放射線治療後的器官保留策略：「觀察與等待」的考量與挑戰 Organ Preservation Strategies after Radiotherapy: Considerations and Challenges of ‘Watch and Wait’	鄭厚軒醫師 Hou-Hsuan Cheng
15:00-15:10	***Coffee Break***	

座長：楊純豪 院長 (Shung-Haur Yang)

Time	Topic	Speaker
15:10-15:50	**短程放射治療與長程同步化放療在 TNT 中的角色** **Role of Short-Course Radiotherapy (SCRT) vs. Long-Course Chemoradiotherapy (LCCRT) in TNT**	
	手術前長療程應用於直腸癌：臺北榮總二十五年經驗 Preoperative Long-Course Radiotherapy for Rectal Cancer: 25 Years’Experience of Taipei Veterans General Hospital	王令瑋主任 Ling-Wei Wang
	短期放射線治療在全程新輔助治療時代下的角色 Role of Short-Course Radiotherapy in the Era of Total Neoadjuvant Therapy	楊婉琴醫師 Wan-Chin Yang
	Discussion	

座長：張世慶 主任 (Shih-Ching Chang)

Time	Topic	Speaker
15:50-16:20	轉移性大腸直腸癌的治療策略：從生物標記出發 Optimizing Treatment Decisions Through Biomarker-Driven Strategies in mCRC	梁逸歆醫師 Yi-Hsin Liang

座長：林春吉 醫師 (Chun-Chi Lin)

16:20-17:10	**性別友善計畫專題** 肛門直腸的性傳染病及相關防治策略 Anorectal Sexual Transmitted Infection and Related Strategies	詹珮君醫師 Pei-Chun Chan
17:10~	***Closing Remarks and Key Takeaways***	張世慶主任 Shih-Ching Chang

Standardizing rectal cancer surgery with the Hugo™ RAS system: The single-docking “HUGO-SWAP” workflow

應用新型機器人輔助平台於大腸直腸外科手術

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Background: Robotic colorectal surgery is evolving with the introduction of modular platforms such as the Hugo™ RAS system. Unlike conventional integrated systems, its independent arm configuration necessitates a redefined surgical workflow to ensure safety, efficiency, and reproducibility, particularly in rectal cancer surgery.

Objective: To present a standardized single-docking workflow (“HUGO-SWAP”) for robotic rectal cancer surgery and to highlight key technical strategies specific to the Hugo™ system.

Methods: The HUGO-SWAP workflow is designed to achieve true single docking through a structured sequence of setup, arm swapping, and re-allocation. A linear port configuration minimizes arm interference, while strategic assistant port placement maintains optimal ergonomics. During the transition from pelvic to upper abdominal phases, arm swapping and re-allocation using the side-panel interface enable optimal instrument alignment. Following this transition, splenic flexure mobilization is performed using a medial-to-lateral approach, allowing safe dissection along the pancreatic–colic plane and controlled vascular handling. In this phase, advanced bipolar energy devices such as LigaSure™ RAS facilitate stable tissue sealing and efficient dissection. In the pelvic phase, stable exposure and traction strategies are essential for deep rectal dissection under the constraints of independent robotic arms. Intracorporeal transection and anastomosis are performed within this standardized framework.

Results: This workflow enables consistent single-docking procedures without redocking and provides stable operative conditions in both pelvic and upper abdominal phases.

Conclusion: The HUGO-SWAP workflow offers a reproducible strategy for rectal cancer surgery using the Hugo™ system and may support broader adoption and training of modular robotic platforms.

Advantages of robotic surgery in colorectal cancer: Single-port vs. multi-port systems

機器手臂輔助手術於直腸癌之優勢：單孔 (Single-Port) 與多孔 (Multi-Port) 系統之比較

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Introduction: Minimally invasive surgery has significantly advanced colorectal cancer treatment, and robotic platforms have further enhanced precision, ergonomics, and surgical access. The emergence of the da Vinci Single-Port (SP) system represents a major evolution, enabling complex colorectal procedures through a single incision and offering improved maneuverability in anatomically narrow spaces. This presentation compares SP and multi-port (MP) robotic systems, highlighting the clinical and technical advantages of SP surgery based on institutional experience.

Methods: A single-institution experience with SP robotic colorectal surgery was reviewed, focusing on technical feasibility, performance in confined pelvic anatomy, and applicability to both abdominal and transanal procedures. Comparative perspectives with MP robotic and laparoscopic approaches were incorporated, emphasizing vessel and nerve identification, pelvic stability, and incision-related outcomes.

Results: SP robotic surgery demonstrated performance comparable to MP systems while providing several distinct advantages. Enhanced visualization and articulation facilitated precise identification of small vessels and autonomic nerves, contributing to reduced blood loss and improved nerve preservation. The platform enabled stable dissection in narrow pelvis cases, including ultra-low anterior resection and intersphincteric resection. Fewer and smaller incisions resulted in reduced postoperative pain and shorter hospital stays. Additionally, the SP system offered a stable and ergonomic platform for transanal procedures, expanding the feasibility of natural orifice surgery without compromising oncologic or functional outcomes.

Conclusion: SP robotic colorectal surgery is technically feasible, safe, and offers meaningful short-term advantages over MP robotic and laparoscopic techniques. Its strengths—minimal incisions, improved ergonomics in narrow spaces, and stable transanal access—position the SP platform as a promising next step in minimally invasive colorectal cancer surgery. Further comparative trials are needed to validate long-term outcomes and refine indications.

Keywords: Single-port robotic surgery; Multi-port robotic surgery; Colorectal cancer;

Transanal surgery; Minimally invasive surgery; da Vinci SP; Natural orifice surgery.

From multiport to single-port: Integrating Xi, SP, and TaTME in the evolution of robotic rectal surgery

從多孔到單孔：Xi、SP 與 TaTME 在機器人直腸手術演進中的整合策略

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Robotic surgery has become an important advancement in minimally invasive colorectal surgery. The da Vinci Xi system provides enhanced three-dimensional visualization, improved instrument articulation, and better ergonomics, enabling surgeons to perform complex colorectal procedures with greater precision and confidence. This presentation shares a single surgeon's experience in adopting robotic colorectal surgery and discusses how the da Vinci Xi platform is shaping the next generation of surgical standards.

In rectal surgery, the robotic platform significantly facilitates pelvic dissection and helps achieve high-quality total mesorectal excision (TME). In colon surgery, robotic technology enables more precise lymph node dissection and supports totally robotic procedures with intracorporeal anastomosis. In the presenter's experience, robotic low anterior resection demonstrated reduced blood loss and favorable outcomes compared with laparoscopic surgery, particularly in lower rectal tumors.

The presentation also introduces early experiences with the da Vinci SP platform and explores its potential applications, including robotic transanal total mesorectal excision (TaTME). While initial cases demonstrate promising feasibility, technical challenges remain. Continued innovation in robotic platforms may further minimize surgical trauma and bring colorectal surgery closer to the goal of truly scarless procedures.

Prevention and management of anastomotic leakage

腸道吻合處滲漏之預防及處置

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Anastomotic leakage (AL) remains one of the most devastating complications following gastrointestinal surgery, particularly in low anterior resection for rectal cancer. AL is associated with significant morbidity, mortality, prolonged hospitalization, and increased healthcare costs. Furthermore, it negatively impacts long-term oncological outcomes and local recurrence rates. Despite advances in minimally invasive techniques and stapling devices, the incidence of AL persists, necessitating established protocols for its prevention and management.

We will discuss the risk factors associated with AL, including patient-related factors (e.g., malnutrition, male gender, obesity, and neoadjuvant radiochemotherapy) and surgical factors (e.g., tension and ischemia). Preventive strategies included optimize patient condition and intraoperative techniques to ensure tension-free anastomosis. The application of emerging technologies, such as Indocyanine Green (ICG) fluorescence angiography, is highlighted for its utility in assessing intraoperative perfusion. Additionally, the role of diverting stomas in high-risk patients is evaluated.

Diagnostic protocols focus on the trajectory of inflammatory markers, specifically C-reactive protein (CRP), as a negative predictive value, with contrast-enhanced CT serving as the gold standard for confirmation. Management strategies are categorized based on the International Study Group of Rectal Cancer (ISREC) grading system: Grade A (conservative management), Grade B (antibiotics with percutaneous or trans-anal drainage), and Grade C (urgent re-operation for peritonitis).

The management of anastomotic leakage requires a multimodal approach. Through the identification and optimization of modifiable risk factors and the adoption of intraoperative perfusion assessment, the risk of AL can be mitigated. Once leakage occurs, early recognition and individualized intervention based on severity grading are paramount to reducing mortality and preserving organ function.

Local excision in early rectal cancer: From alternative care to risk stratification

早期直腸癌的局部切除：從替代治療到風險分層管理

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Radical surgery with total mesorectal excision (TME) remains the gold standard treatment for rectal cancer, offering excellent oncologic outcomes but at the cost of substantial morbidity, functional impairment, and permanent stoma in selected patients. With increasing emphasis on organ preservation and minimally invasive strategies, local excision has emerged as an important treatment option in carefully selected cases. In current practice, local excision should not be regarded merely as an "alternative" to radical surgery, but rather as part of a structured, risk-adapted management strategy guided by pathological evaluation and multimodal therapy.

Local excision in early rectal cancer can be achieved through multiple approaches, including endoscopic submucosal dissection (ESD), endoscopic muscularis dissection (EMD), and transanal minimally invasive surgery (TAMIS). These techniques provide complementary options depending on tumor location, morphology, depth of invasion, fibrosis, and institutional expertise. The critical prerequisite for curative intent local excision remains high-quality en-bloc R0 resection, enabling accurate histopathologic assessment of depth of invasion, lymphovascular invasion, tumor budding, differentiation, and margin status.

For suspected T1 rectal cancer, international guidelines have established clear criteria for curative local resection. In low-risk lesions, en-bloc R0 local excision followed by surveillance may provide oncologic safety comparable to radical surgery while preserving anorectal function. In contrast, patients with high-risk pathological features should be considered for completion radical surgery or additional therapy. For T2 rectal cancer, radical surgery remains the recommended standard. Nevertheless, in patients refusing radical surgery or unfit for major resection, emerging evidence suggests that selected cases may be managed by EMD or full-thickness local excision, provided that adjuvant chemoradiotherapy (CCRT) is incorporated to improve oncologic safety. In locally advanced rectal cancer (≥T3) after neoadjuvant CCRT, patients achieving clinical complete response (cCR) may be considered for a watch-and-wait strategy. However, uncertainty in response assessment remains a major concern. In patients unwilling to undergo TME, diagnostic local excision using ESD/EMD or TAMIS may provide valuable pathological confirmation and further risk stratification to guide subsequent management.

This lecture will review the current evidence and practical decision-making framework of local excision

in early rectal cancer, emphasizing the integration of ESD, EMD, and TAMIS within a structured risk stratification strategy to optimize oncologic safety while minimizing overtreatment.

Keywords: Chemoradiotherapy; EMD; ESD; Local excision; Organ preservation; Rectal cancer; Risk stratification; T1; T2; TAMIS

Total Pelvic Exenteration (TPE): Challenging the limits and ensuring safety

骨盆腔廓清手術：挑戰極限與安全

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Complex pelvic disease was always difficult to manage in cancer treatment. Pelvic cavity is a narrow space area contains several major vessels, nerves, and organs. Operation in pelvic could leads to high morbidity and mortality. Earlier time in Taiwan, the major tools facing complex pelvic tumor were radiation and chemotherapy. However, the outcome was not very well, and the patient might suffer from uncontrolled infection or pain.

Pelvic exenteration leads to better disease control and life quality in properly selected cases. It extends surgery more than total mesorectum (TME) plane, push our limit and boundary forwards. Before performing exenteration surgery, we need comprehensive understanding of pelvic anatomy. Reduce morbidity and mortality with well planning.

We'll share our understating and current evidence of pelvic exenteration. Also, our initial experience of pelvic exenteration surgery and pitfall we encountered.

From image to action: The role of MRI in rectal cancer decision-making

從影像到臨床策略：MRI 如何影響直腸癌治療決策

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Magnetic resonance imaging (MRI) has become a central imaging modality in the management of rectal cancer, providing critical information that directly influences clinical decision-making throughout the disease course. High-resolution pelvic MRI is widely regarded as the standard tool for local staging, enabling detailed evaluation of tumor extent, depth of invasion, and its relationship to the mesorectal fascia. Imaging features such as circumferential resection margin (CRM) involvement, extramural vascular invasion (EMVI), and nodal status are key prognostic indicators that guide treatment strategies, including the selection of neoadjuvant chemoradiotherapy or total neoadjuvant therapy.

Beyond baseline staging, MRI also plays an essential role in treatment response assessment. Following neoadjuvant therapy, MRI allows evaluation of tumor regression, fibrosis, and residual disease, which helps determine the feasibility of sphincter-preserving surgery or consideration of organ-preserving strategies such as the “watch-and-wait” approach in selected patients with complete clinical response. MRI is also valuable in postoperative surveillance, particularly in differentiating postoperative fibrosis from local tumor recurrence.

In addition to local disease assessment, MRI has emerged as an important modality for detecting distant metastases, particularly in the liver, which is the most common site of metastasis in rectal cancer. Hepatobiliary contrast-enhanced MRI using gadoxetic acid (EOB-MRI) significantly improves the detection of small liver metastases compared with conventional imaging. Early identification of hepatic metastases can alter staging, influence surgical planning, and facilitate timely multidisciplinary treatment strategies, including liver-directed therapy.

While computed tomography remains widely used for systemic staging, MRI increasingly provides both detailed local evaluation and highly sensitive detection of hepatic metastases. By integrating pelvic MRI and liver MRI findings into multidisciplinary discussions, imaging can move beyond diagnosis to actively shape treatment pathways. This evolving role highlights how modern MRI enables clinicians to translate imaging findings into actionable therapeutic decisions in rectal cancer management.

Later-line treatment strategies in metastatic colorectal cancer: Clinical development and optimal integration

轉移性大腸直腸癌後線治療策略：臨床發展與最佳整合

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The treatment landscape of metastatic colorectal cancer (mCRC) in the later-line setting has expanded considerably, yet optimal sequencing and integration of available therapies remain key clinical challenges. Among current options, trifluridine/tipiracil (FTD/TPI) has demonstrated a consistent survival benefit with a manageable safety profile, and its combination with bevacizumab has further improved clinical outcomes. Randomized evidence has shown that FTD/TPI plus bevacizumab significantly prolongs survival compared with FTD/TPI alone, supporting this combination as a key standard of care in previously treated mCRC.

In parallel, other anti-angiogenic approaches such as fruquintinib have demonstrated efficacy in refractory populations, providing additional options beyond cytotoxic-based therapies. As treatment options increase, therapy selection should be individualized based on prior exposure to anti-angiogenic agents, cumulative toxicities, and patient-specific factors, including performance status and disease burden. Clinical experience underscores the importance of maintaining disease control while preserving quality of life in heavily pretreated patients.

The therapeutic paradigm is also evolving toward biomarker-driven strategies. HER2-targeted therapies, including trastuzumab combined with pertuzumab and trastuzumab deruxtecan, have demonstrated meaningful activity in patients with HER2-amplified mCRC. In addition, KRAS G12C inhibitors such as sotorasib, particularly when combined with EGFR blockade, have shown promising efficacy in molecularly defined subgroups. These advances highlight the growing importance of molecular stratification in later-line treatment.

As these emerging therapies become increasingly integrated into clinical practice, defining their optimal positioning relative to established regimens—particularly FTD/TPI plus bevacizumab—will be critical. This presentation will review the clinical evidence supporting FTD/TPI-based combination therapy, summarize safety and real-world experience, and discuss a practical framework for sequencing later-line treatments in mCRC.

Organ preservation strategies after radiotherapy: Considerations and challenges of 'watch and wait'

放射線治療後的器官保留策略：「觀察與等待」的考量與挑戰

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The standard of care for locally advanced mid-to-low rectal cancer remains neoadjuvant chemoradiotherapy (nCRT) followed by total mesorectal excision (TME). Despite surgical advancements, long-term functional sequelae—including impaired bowel, urinary, and sexual functions—significantly impact patients' quality of life. The "Watch and Wait" (W&W) strategy offers a paradigm shift by allowing patients with a clinical complete response (cCR) to pursue organ preservation. Current clinical evidence suggests that oncological outcomes and survival rates for W&W are comparable to those of immediate radical surgery.

However, the implementation of W&W faces several critical challenges. First, cCR assessment relies heavily on digital rectal examination (DRE), endoscopy, and MRI, all of which have inherent diagnostic limitations. The potential for liquid biopsies or endorectal ultrasound to improve diagnostic accuracy remains an area of active investigation. Furthermore, there is no standardized definition for "near cCR," nor is there a consensus on its conversion rate to cCR or whether local excision can safely replace radical surgery in these cases. These uncertainties complicate clinical decision-making. Second, the optimal sequence and combination of nCRT—including the role of total neoadjuvant therapy (TNT) and the integration of immunotherapy for microsatellite instability (MSI) and beyond—remain to be fully established.

Future directions involve optimizing multidrug regimens, integrating immune-checkpoint inhibitors, and refining the synergy between long-course and short-course radiotherapy. Establishing standardized protocols for cCR evaluation and surveillance is essential to balance oncological safety with the preservation of long-term quality of life.

Preoperative long-course radiotherapy for rectal cancer: 25 years' experience of Taipei Veterans General Hospital

手術前長療程應用於直腸癌：臺北榮總二十五年經驗

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Surgery and radiotherapy (RT) are both important modalities for locally advanced rectal cancer. Since 2000, preoperative RT has replaced post-operative RT in the above scenario. We started long-course chemoradiotherapy (LCRT) with different chemotherapy regimen in Taipei VGH 25 years ago. In the last 10 years, short-course RT (SCRT) has become the main modality in the preoperative setting, especially combined with neoadjuvant chemotherapy, that is, total neoadjuvant therapy (TNT). However, some patients still received LCRT for specific reasons.

From randomized clinical trials, SCRT and LCRT offer comparable long-term survival and local control, but they are selected based on specific clinical goals and patient health. SCRT is a one-week, highly convenient, and cost-effective option with lower acute toxicity, making it ideal for elderly or frail patients and cases where surgery is already planned. In contrast, the five-to-six-week LCRT regimen provides superior tumor downstaging and higher rates of complete response, establishing it as the "gold standard" for organ preservation (the "Watch and Wait" approach) and for shrinking advanced or low-lying tumors to avoid a permanent stoma. While SCRT is an efficient component of modern Total Neoadjuvant Therapy (TNT) protocols, recent clinical data suggests that LCRT provides more durable results for patients aiming to avoid surgery entirely, as SCRT carries a higher risk of local tumor regrowth in non-operative management.

Role of short-course radiotherapy in the era of total neoadjuvant therapy

短期放射線治療在全程新輔助治療時代下的角色

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Short-course radiotherapy (SCRT), delivering 25 Gy in five fractions over one week, has emerged as an attractive alternative to conventional long-course chemoradiation (LCCRT) for rectal cancer. Compared with surgery alone, SCRT significantly reduces local recurrence without compromising overall survival. Although LCCRT generally achieves greater tumor downstaging, SCRT offers several practical and clinical advantages that have increased its use in modern treatment strategies.

One key advantage of SCRT is its short treatment duration, which enables earlier initiation of systemic therapy and facilitates integration into total neoadjuvant therapy (TNT) regimens. In the RAPIDO trial, high-risk locally advanced rectal cancer patients were randomized to SCRT followed by consolidation chemotherapy and delayed surgery versus standard LCCRT. SCRT-based TNT doubled the pathological complete response rate (28.4% vs. 14.3%), improved compliance with systemic therapy, and reduced disease-related treatment failure and distant metastases. Overall survival and locoregional control were comparable between the two strategies. Five-year follow-up confirmed sustained reductions in distant metastases, although a modest increase in locoregional recurrence was observed in the SCRT group.

Beyond oncologic outcomes, SCRT provides important practical benefits. The one-week schedule markedly reduces treatment burden and improves patient convenience, particularly for elderly or frail patients and those living far from treatment centers. SCRT is also associated with fewer acute toxicities, including lower rates of gastrointestinal and genitourinary adverse effects, and peri-anal dermatitis is uncommon. Acute symptoms often occur after completion of treatment rather than during radiotherapy.

In summary, SCRT represents an effective and convenient neoadjuvant radiotherapy strategy for rectal cancer. Its short treatment course, lower acute toxicity, and facilitation of early systemic therapy make it particularly well suited for TNT approaches. Careful patient selection remains important, as LCCRT may still be preferred for distal tumors requiring higher pelvic radiation doses. Ongoing trials combining SCRT with chemotherapy or immunotherapy may further optimize personalized treatment strategies.

Optimizing treatment decisions through biomarker-driven strategies in mCRC

轉移性大腸直腸癌的治療策略：從生物標記出發

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The management of metastatic colorectal cancer (mCRC) is increasingly guided by biomarker-driven strategies, reflecting a shift toward precision oncology. Molecular profiling, including RAS, BRAF, and MSI status, plays a critical role in informing treatment selection, sequencing, and overall treatment planning.

Recent data presented at major international congresses in 2026 have further highlighted the evolving role of targeted combination strategies. The phase III BREAKWATER trial demonstrated that the addition of encorafenib and cetuximab to FOLFIRI-based chemotherapy improved response rates and progression-free survival in patients with BRAF V600E–mutant mCRC. In parallel, emerging evidence suggests that KRAS G12C inhibitors in combination with cetuximab have shown promising clinical activity, with ongoing studies such as KRYSTAL-10 further evaluating this approach.

These advances reflect a shift from biomarker-based exclusion toward biomarker-specific combination strategies, positioning EGFR inhibition as a potential therapeutic backbone across multiple molecular subgroups. Such developments support a more individualized approach to treatment selection in contemporary clinical practice.

In clinical practice, treatment decisions should integrate molecular characteristics with key clinical factors, including tumor burden, disease distribution, patient condition, and treatment intent.This presentation will review recent clinical evidence and explore how biomarker-driven strategies can be applied in daily practice to optimize treatment decisions and improve patient outcomes in mCRC.

Anorectal sexual transmitted infection and related strategies

肛門直腸的性傳染病及相關防治策略

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Background: HIV and anorectal sexually transmitted infections (STIs)—including syphilis, gonorrhea, and mpox—remain major public health concerns in Taiwan. These infections overlap in transmission routes, clinical presentations, and affected populations, particularly among men who have sex with men (MSM). Integrating HIV/STI prevention into surgical and colorectal care may improve early detection and treatment and strengthen linkage to comprehensive sexual health services. In 2025, Taiwan reported 879 newly diagnosed HIV cases, a 12% decrease from 2024, likely reflecting strengthened post-pandemic screening. Syphilis cases rose by 2%, with a 7% increase among women, suggesting a shift in gender distribution; moreover, incidence among adolescents and young adults has increased over the past five years regardless of gender. Gonorrhea incidence declined by 16%. Mpox outbreaks have been contained through targeted vaccination of high-risk groups; since expanded access began in 2023, 61 cases were reported and confirmed in 2025. Most mpox cases presented with genital or perianal lesions and were often initially misdiagnosed as condyloma or herpes, underscoring the importance of differential diagnosis among surgical specialists.

Methods and Results: The B1 Program—a nationwide initiative—provides routine HIV testing for patients with STIs, acute viral hepatitis, or substance use disorders in clinical settings. Between 2019 and 2025, the program demonstrated increased case detection, particularly within colorectal surgical departments, where the highest HIV positivity rates were observed among patients diagnosed with condyloma acuminatum, genital herpes, and syphilis. The program incentivizes clinics to integrate HIV screening and counseling into routine care and encourages partner notification and treatment.

HIV Prevention and Pre-exposure Prophylaxis (PrEP) Expansion— a government-subsidized PrEP program, enrolling over 11,000 users, including MSM, sex workers, sero-discordant couples and individuals engaged in chemsex has been endorsed nation-wide since 2018. For those at-risk population who tested negative for HIV, PrEP is a good choice of prevention for HIV in the future.

Health Promotion and Professional Education—in collaboration with national medical societies, including family medicine, obstetrics and gynecology, urology, colon and rectal surgeons and infectious diseases. These initiatives, reaching nearly 2,000 healthcare professionals in 2025, aim to standardize STI management and promote stigma-free, sex-positive clinical environments.

Conclusions: Taiwan's integrated approach—surveillance, targeted vaccination, expanded screening, and PrEP scale-up—highlights the value of linking public health policy with surgical practice. Embedding HIV/STI prevention in colorectal care can improve outcomes and advance national goals to end HIV transmission and promote sexual health equity. By 2025, the Sexual Health-Friendly Clinics Program had

certified 1,879 physicians to deliver inclusive, evidence-based care. We warmly invite all colon and rectal surgeons to join us.

Keywords: Clinical integration; Gonorrhea; HIV; Mpox; PrEP; Public health policy; Sexual health; Sexually transmitted infections; Syphilis; Taiwan CDC