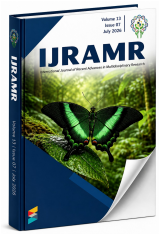
ISSN : 2350-0743

International Journal of Recent Advances in Multidisciplinary Research

Vol. 13, Issue 07, pp.12641-12647, July, 2026
https://doi.org/10.64485/ijramr.6651.07.2026



REVIEW ARTICLE

CLINICAL AUDIT OF THE MANAGEMENT AND TREATMENT OUTCOMES OF CARCINOMA CERVIX AT A TERTIARY CARE HOSPITAL IN NORTHERN INDIA: A SIX-YEAR RETROSPECTIVE STUDY

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ARTICLE INFO

Article History:
Received 15th April, 2026
Received in revised form
20th May, 2026
Accepted 25th June, 2026
Published online 30th July, 2026

Keywords:

Cervical cancer; Clinical audit; Radiotherapy; Concurrent chemoradiotherapy; Brachytherapy; Treatment compliance; Toxicity; Quality improvement.

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ABSTRACT

Background: Cervical cancer remains a major public health concern in India despite being largely preventable through screening and human papillomavirus (HPV) vaccination. Delayed diagnosis, poor treatment compliance, and inadequate follow-up continue to compromise treatment outcomes, particularly in resource-limited settings. Clinical audits provide an opportunity to evaluate institutional practices, identify deficiencies in patient care, and guide quality improvement initiatives. **Objective:** To evaluate the demographic and clinicopathological profile, treatment patterns, treatment compliance, clinical outcomes, treatment-related toxicities, and follow-up status of patients with carcinoma cervix managed at a tertiary care teaching hospital. **Materials and Methods:** A retrospective clinical audit was conducted in the Department of Radiation Oncology, Sarojini Naidu Medical College, Agra, India. Medical records of 283 consecutive patients with histologically confirmed carcinoma cervix registered between January 2018 and December 2023 were reviewed. Demographic characteristics, FIGO stage, histopathology, treatment details, treatment compliance, response to therapy, treatment-related toxicities, and follow-up data were collected. Of the registered patients, 193 (68.2%) completed the planned treatment protocol and were included for response and toxicity assessment. Data were analysed using descriptive statistics and expressed as frequencies, percentages, medians, and ranges. **Results:** The median age at presentation was 54 years (range, 18–69 years). Most patients presented with locally advanced disease (FIGO stage III–IV, 59.0%), while squamous cell carcinoma was the predominant histological subtype. Among the 193 patients who completed treatment, the majority received definitive radiotherapy with concurrent platinum-based chemotherapy followed by intracavitary brachytherapy. At the first post-treatment evaluation, 125 patients (65.0%) achieved a complete clinical response, whereas residual disease, progressive disease, and recurrence were observed in 11.0%, 19.0%, and 5.0% of patients, respectively. Anaemia was the most common acute treatment-related toxicity, while bladder and rectal complications represented the predominant late toxicities. Treatment default (31.8%) and poor long-term follow-up were identified as the principal deficiencies in patient management. **Conclusion:** This clinical audit demonstrates that a substantial proportion of patients continue to present with advanced-stage cervical cancer, reflecting persistent gaps in early detection and timely referral. Although satisfactory clinical response was achieved among patients completing definitive treatment, treatment completion and follow-up remained suboptimal. Strengthening community awareness, expanding cervical cancer screening, improving referral pathways, reducing treatment interruptions, and implementing structured patient-tracking systems are essential quality improvement measures to optimize cervical cancer care in resource-constrained settings.

Citation: Dr. Lalit Raj, Dr. Shivani Malik, Dr. Renu Singh and Dr. Ashok Kumar Arya, 2026. "Clinical Audit of the Management and Treatment Outcomes of Carcinoma Cervix at a Tertiary Care Hospital in Northern India: A Six-Year Retrospective Study", *International Journal of Recent Advances in Multidisciplinary Research, 13,(07), 12641-12647.*

INTRODUCTION

Cervical cancer remains a major public health challenge and is one of the leading causes of cancer-related morbidity and mortality among women worldwide. According to the GLOBOCAN 2022 estimates, approximately 662,301 new cases and 348,874 deaths occur annually, making cervical cancer the fourth most common malignancy among women globally. Despite being largely preventable through human papillomavirus (HPV) vaccination, population-based screening, and timely treatment of premalignant lesions, nearly 90% of cervical cancer-related deaths occur in low- and middle-income countries (LMICs), reflecting persistent disparities in healthcare access and preventive services [1]. India contributes substantially to the global burden of cervical cancer, with an estimated 127,526 new cases and 79,906 deaths reported in 2022, making it the second most common cancer among Indian women [1].

The high incidence is primarily attributable to poor awareness, inadequate screening coverage, delayed healthcare-seeking behaviour, socioeconomic constraints, limited access to specialized oncology services, and marked regional disparities in healthcare infrastructure. Consequently, many patients continue to present with locally advanced disease, reducing the likelihood of cure and increasing treatment-related morbidity.

Persistent infection with high-risk HPV, particularly HPV-16 and HPV-18, is the principal etiological factor in cervical carcinogenesis. Additional risk factors include early age at marriage, multiparity, poor genital hygiene, tobacco use, immunosuppression, prolonged oral contraceptive use, and low socioeconomic status.[2,3] Although HPV vaccination and organized screening programmes have significantly reduced disease incidence and mortality in several high-income countries, widespread implementation of these preventive strategies remains limited in many parts of India. Management of cervical cancer depends on disease stage, tumour characteristics, and patient-related factors. Current National Comprehensive Cancer Network (NCCN) and European Society of Gynaecological Oncology (ESGO) guidelines recommend surgery for selected patients with early-stage disease, whereas concurrent chemoradiotherapy followed by intracavitary brachytherapy remains the standard treatment for locally advanced cervical cancer.[4–7] The addition of platinum-based concurrent chemotherapy to definitive radiotherapy has consistently demonstrated improvements in local control and survival. Furthermore, completion of external beam radiotherapy and brachytherapy within the recommended overall treatment time is recognized as a critical determinant of treatment success.

Despite the availability of evidence-based treatment guidelines, delivery of optimal cervical cancer care remains challenging in resource-constrained healthcare settings. Delayed diagnosis, prolonged waiting times, treatment interruptions due to anaemia or treatment-related toxicities, financial constraints, machine downtime, poor treatment compliance, and inadequate follow-up frequently compromise treatment outcomes. These deficiencies often remain unrecognized unless systematically evaluated through institutional quality assurance programmes. Clinical audit is a well-established quality improvement process that evaluates routine clinical practice against accepted standards of care, identifies deficiencies in service delivery, and facilitates implementation of corrective measures to improve patient outcomes. In oncology, clinical audits have been widely used to assess stage at presentation, adherence to treatment guidelines, treatment completion, overall treatment time, toxicity, follow-up, and survival outcomes. Regular audits provide objective evidence for improving institutional performance, optimizing resource utilization, and strengthening patient care pathways [8–10]. Sarojini Naidu Medical College, Agra, is a major tertiary referral centre serving western Uttar Pradesh and neighbouring districts, where a substantial proportion of patients originate from rural and socioeconomically disadvantaged populations. Many patients present with advanced-stage disease following delayed diagnosis or incomplete treatment elsewhere, posing significant challenges to effective management. Periodic evaluation of institutional treatment practices is therefore essential to identify deficiencies in patient care and establish evidence-based quality improvement strategies. Accordingly, the present retrospective clinical audit was undertaken to evaluate the demographic and clinicopathological characteristics, stage at presentation, treatment patterns, treatment compliance, clinical response, treatment-related toxicities, and follow-up status of patients with carcinoma cervix managed at our institution between January 2018 and December 2023. In addition, the audit sought to identify gaps in the delivery of care by comparing institutional practice with accepted standards and to generate baseline quality indicators for future re-audit and continuous quality improvement initiatives.

Aims and Objectives

Primary Objective

To evaluate the demographic characteristics, clinicopathological profile, treatment patterns, treatment compliance, response to therapy, treatment-related toxicities, and follow-up status of patients with histologically confirmed carcinoma cervix managed at a tertiary care teaching hospital over a six-year period.

Secondary Objectives

- To determine the age distribution and geographical referral pattern of patients diagnosed with carcinoma cervix.
- To evaluate the stage distribution and histopathological characteristics at initial presentation.
- To assess the various treatment modalities employed, including neoadjuvant chemotherapy, external beam radiotherapy, concurrent chemoradiotherapy, intracavitary brachytherapy, and palliative treatment.
- To determine treatment compliance and identify the proportion of patients completing the planned treatment protocol.
- To evaluate clinical response following completion of treatment.
- To assess acute and late treatment-related toxicities encountered during follow-up.
- To identify deficiencies in the existing treatment pathway and recommend institutional quality improvement measures for optimizing cervical cancer care.

MATERIALS AND METHODS

Study Design and Setting: This retrospective clinical audit was conducted in the Department of Radiation Oncology, Sarojini Naidu Medical College, Agra, Uttar Pradesh, India. The audit evaluated the management of patients with histologically confirmed carcinoma cervix treated over a six-year period and assessed institutional treatment practices, treatment compliance, clinical outcomes, and opportunities for quality improvement.

Study Period: The study included patients registered between January 2018 and December 2023.

Study Population: All consecutive patients with histologically confirmed carcinoma cervix registered during the study period were screened for eligibility. A total of 283 patients fulfilled the inclusion criteria and constituted the study population. Among these patients, 193 (68.2%) completed the planned treatment protocol and had adequate records available for assessment of treatment response and treatment-related toxicities. The remaining patients either defaulted during treatment, discontinued therapy, were referred to another

institution, or were lost to follow-up before completion of treatment.

Eligibility Criteria

Inclusion Criteria

- Histologically confirmed carcinoma cervix.
- Registration in the Department of Radiation Oncology between January 2018 and December 2023.
- Patients receiving definitive or palliative treatment at the study institution.
- Availability of adequate baseline clinical records for analysis.

Exclusion Criteria

- Incomplete medical records precluding meaningful analysis.
- Patients who defaulted before initiation of treatment.
- Patients referred to another institution before completion of planned therapy.
- Patients with recurrent cervical carcinoma previously treated elsewhere.

Patients who did not complete the planned treatment protocol were included in the analysis of baseline demographic and clinicopathological characteristics but were excluded from response and toxicity assessment.

Audit Standards: This clinical audit evaluated institutional practice against contemporary evidence-based recommendations derived from the National Comprehensive Cancer Network (NCCN), European Society of Gynaecological Oncology (ESGO), National Cancer Grid (India), and institutional treatment protocols. The audit focused on the following quality indicators:

- Stage at presentation
- Treatment completion
- Delivery of definitive chemoradiotherapy where indicated
- Completion of brachytherapy following external beam radiotherapy
- Treatment-related toxicity
- Follow-up compliance

The purpose of the audit was to identify deficiencies in routine clinical practice and establish baseline quality indicators for future re-audit and quality improvement initiatives.

Data Collection

Data were retrieved from departmental registration records, inpatient and outpatient case files, radiotherapy treatment records, chemotherapy registers, brachytherapy records, and follow-up registers.

The following variables were extracted:

Demographic variables

- Age at presentation
- District of residence/referral
- Socioeconomic background (where documented)

Clinicopathological variables

- Presenting symptoms
- ECOG performance status (where available)
- FIGO stage
- Histopathological subtype
- Histological grade

Treatment variables

- Neoadjuvant chemotherapy
- Concurrent chemotherapy
- External beam radiotherapy
- Intracavitary brachytherapy
- Palliative radiotherapy
- Treatment completion
- Treatment interruptions (where documented)

Outcome variables

- Complete clinical response
- Residual disease
- Progressive disease
- Disease recurrence
- Acute treatment-related toxicity
- Late treatment-related toxicity
- Follow-up status

Staging and Pretreatment Evaluation

Patients were staged according to the International Federation of Gynecology and Obstetrics (FIGO) staging system applicable during the study period. Pretreatment evaluation included detailed clinical examination, histopathological confirmation, complete blood counts, renal and liver function tests, chest radiography, ultrasonography of the abdomen and pelvis, and contrast-enhanced computed tomography (CECT) or magnetic resonance imaging (MRI) whenever clinically indicated. Cystoscopy and proctoscopy were performed selectively in patients with suspected bladder or rectal involvement.

Treatment Protocol: Treatment decisions were individualized according to disease stage, performance status, comorbidities, and multidisciplinary team recommendations. Patients with locally advanced cervical cancer were primarily treated with definitive concurrent chemoradiotherapy. External beam radiotherapy (EBRT) was delivered using a Telecobalt (Cobalt-60) unit with conventional two-dimensional treatment planning.

A dose of 45–50.4 Gy was prescribed in 25–28 fractions, delivered five fractions per week using anteroposterior–posteroanterior (AP–PA) or four-field box techniques according to tumour extent and anatomical considerations. Concurrent chemotherapy consisted predominantly of weekly platinum-based chemotherapy, usually cisplatin, while carboplatin was administered in selected patients with impaired renal function or other contraindications to cisplatin. Following completion of EBRT, eligible patients underwent intracavitary brachytherapy using either high-dose-rate (HDR) or low-dose-rate (LDR) techniques, with the aim of delivering a cumulative dose of approximately 80–85 Gy EQD_2 to Point A.

Patients unsuitable for radical treatment because of advanced disease, poor performance status, significant comorbidities, or metastatic disease received individualized palliative treatment.

Response Assessment: Patients who completed definitive treatment underwent their first post-treatment evaluation approximately 3–6 months after treatment completion. Response assessment was based primarily on pelvic clinical examination and was supplemented by contrast-enhanced CT or MRI whenever clinically indicated.

Clinical response was categorized as:

- Complete response (CR)
- Residual disease (RD)
- Progressive disease (PD)
- Disease recurrence during follow-up

Toxicity Assessment

Treatment-related toxicities were identified from departmental follow-up records. Acute toxicities were defined as adverse events occurring during treatment or within 90 days after treatment completion and included hematological, gastrointestinal, genitourinary, and dermatological toxicities. Late toxicities included bladder and rectal complications documented during subsequent follow-up. Because of the retrospective nature of the audit, standardized CTCAE or RTOG grading was not consistently available; therefore, toxicity analysis was based on contemporaneous clinical documentation recorded in the medical records.

Statistical Analysis: Data were entered into Microsoft Excel (Microsoft Corporation, Redmond, WA, USA) and analysed using IBM SPSS Statistics version 26.0 (IBM Corp., Armonk, NY, USA). Continuous variables were summarized as median (range) or mean ± standard deviation, as appropriate. Categorical variables were expressed as frequencies and percentages. As this was a descriptive clinical audit, no inferential statistical analyses or hypothesis testing were performed.

Ethical Considerations: The study was conducted as a retrospective institutional clinical audit using anonymized patient records. Patient confidentiality was maintained throughout the study, and all data were de-identified before analysis.The audit was performed in accordance with the ethical principles of the Declaration of Helsinki and institutional policies governing retrospective observational research.

RESULTS

Patient Characteristics: Between January 2018 and December 2023, a total of 283 patients with histologically confirmed carcinoma cervix were registered in the Department of Radiation Oncology, Sarojini Naidu Medical College, Agra. Of these, 193 patients (68.2%) completed the planned treatment protocol, while 90 patients (31.8%) discontinued treatment, defaulted during therapy, were referred elsewhere, or were lost before treatment completion. Only patients who completed definitive treatment were included in the assessment of treatment response and treatment-related toxicity.

The median age at presentation was 54 years (range: 18–69 years). The highest proportion of patients belonged to the 50–59-year age group (46.6%), followed by the 30–39-year and 60–69-year age groups (14.1% each). Baseline demographic characteristics are summarized in Table 1.

Table 1. Baseline demographic characteristics of the study population (n = 283)

Variable	Number	Percentage (%)
Median age (years)	54	—
Age range (years)	18–69	—
20–29 years	33	11.7
30–39 years	40	14.1
40–49 years	38	13.4
50–59 years	132	46.6
60–69 years	40	14.1

Geographical Distribution: The institution primarily catered to patients from western Uttar Pradesh. Nearly half of all patients were referred from Agra district (46.6%), followed by Etawah (11.7%), Aligarh (9.9%), Firozabad (9.9%), Etah (9.5%), Mathura (6.7%), and Hathras (5.7%), highlighting the role of the institute as a regional tertiary referral centre.

Table 2. District-wise distribution of patients (n = 283)

District	Number	Percentage (%)
Agra	132	46.6
Etawah	33	11.7
Aligarh	28	9.9
Firozabad	28	9.9
Etah	27	9.5
Mathura	19	6.7
Hathras	16	5.7

Clinicopathological Characteristics: Most patients presented with locally advanced disease. FIGO stage III disease constituted the largest subgroup (34.6%), followed by stage II (29.3%) and stage IV (24.4%), whereas only 11.7% of patients presented with stage I disease. Overall, 59.0% of patients presented with stage III or IV disease, indicating delayed diagnosis and referral. Squamous cell carcinoma was the predominant histological subtype. Moderately differentiated squamous cell carcinoma accounted for nearly half of all cases (49.1%), followed by well-differentiated squamous cell carcinoma (21.9%), poorly differentiated squamous cell carcinoma (18.4%), and adenocarcinoma (10.6%).

Table 3. Clinicopathological characteristics (n = 283)

Variable	Number	Percentage (%)
FIGO stage		
Stage I	33	11.7
Stage II	83	29.3
Stage III	98	34.6
Stage IV	69	24.4
Histopathology		
Moderately differentiated squamous cell carcinoma	139	49.1
Well-differentiated squamous cell carcinoma	62	21.9
Poorly differentiated squamous cell carcinoma	52	18.4
Adenocarcinoma	30	10.6

Treatment Characteristics: Among the 283 registered patients, 193 (68.2%) completed the planned treatment protocol. Treatment selection was individualized according to disease stage, performance status, associated comorbidities,

and institutional treatment policy. Most patients underwent external beam radiotherapy followed by intracavitary brachytherapy with or without platinum-based chemotherapy. Treatment characteristics are summarized in Table 4.

Table 4. Treatment characteristics among patients completing therapy (n = 193)

Treatment modality	Number
Neoadjuvant chemotherapy + EBRT + ICBT	43
EBRT + ICBT	29
Intracavitary brachytherapy alone	18
Sorbo application	23
Other individualized treatment protocols*	80
Total	**193**

*Individualized treatment was based on disease stage, performance status, comorbidities, and treating physician's discretion.

Treatment Response: Clinical response was assessed 3–6 months after completion of treatment in the 193 patients who completed therapy. A complete clinical response was observed in 125 patients (65.0%). Residual disease, progressive disease, and recurrence were documented in 11.0%, 19.0%, and 5.0% of patients, respectively.

Table 5. Clinical response following treatment (n = 193)

Response	Number	Percentage (%)
Complete response	125	65.0
Residual disease	21	11.0
Progressive disease	37	19.0
Recurrence	10	5.0

Treatment-Related Toxicity: Anaemia was the most frequently documented acute treatment-related toxicity. Grade III hematological toxicity occurred in approximately **10%** of patients receiving concurrent chemoradiotherapy. Bladder and rectal toxicities represented the most commonly reported late adverse effects. Grade III gastrointestinal toxicity was documented in two patients, while no Grade IV toxicity was observed during the study period.

Table 6. Treatment-related toxicities

Toxicity	Observation
Anaemia	Most common acute toxicity
Grade III hematological toxicity	Approximately 10%
Bladder toxicity	Most common late toxicity
Rectal toxicity	Most common late toxicity
Grade III gastrointestinal toxicity	2 patients
Grade IV toxicity	None observed

Follow-up: The median duration of follow-up was 18.5 months. Although treatment completion was achieved in 68.2% of patients, long-term follow-up remained suboptimal, limiting comprehensive assessment of disease-free survival, overall survival, and late treatment-related complications. Poor follow-up compliance emerged as one of the principal deficiencies identified during this clinical audit and represents an important target for future institutional quality improvement initiatives.

DISCUSSION

The present retrospective clinical audit provides a comprehensive evaluation of the demographic profile, clinicopathological characteristics, treatment patterns, treatment compliance, clinical outcomes, treatment-related toxicities, and follow-up status of patients with carcinoma cervix managed at a tertiary care teaching hospital in northern India over a six-year period. The audit identified several important deficiencies in routine clinical practice, including advanced-stage presentation, suboptimal treatment completion, and poor long-term follow-up, all of which represent potential targets for institutional quality improvement. The median age at presentation in the present study was 54 years, with the highest disease burden observed among women aged 50–59 years. This finding is consistent with published Indian and international literature demonstrating that cervical cancer predominantly affects women in the fifth and sixth decades of life. The observed age distribution reflects the prolonged natural history of persistent high-risk HPV infection, which typically progresses over several years before the development of invasive carcinoma.

One of the most important findings of this audit was that 59.0% of patients presented with FIGO stage III or IV disease, indicating that the majority of patients sought medical attention only after developing locally advanced disease. Similar observations have been reported from several tertiary oncology centres across India, where delayed presentation remains a major barrier to curative treatment. Multiple factors probably contribute to this pattern, including limited awareness of early symptoms, inadequate implementation of organized screening programmes, socioeconomic constraints, poor access to specialist oncology services, and delayed referral from peripheral healthcare facilities. These findings reinforce the urgent need to strengthen cervical cancer awareness programmes, improve screening coverage, and establish efficient referral pathways. Squamous cell carcinoma was the predominant histological subtype in the present study, accounting for the vast majority of cases, while adenocarcinoma constituted a relatively small proportion. This distribution is in agreement with the established epidemiology of cervical cancer and reflects the strong association between persistent HPV infection and squamous carcinogenesis within the transformation zone of the cervix.

Among the 283 registered patients, only 193 (68.2%) completed the planned treatment protocol, whereas nearly one-third failed to complete treatment. This represents one of the most important quality indicators identified during the audit. In potentially curable malignancies such as cervical cancer, treatment completion is essential for achieving optimal local control and survival. Failure to complete treatment is often multifactorial and may result from financial hardship, transportation difficulties, prolonged waiting periods, treatment-related toxicities, anaemia, poor nutritional status, inadequate family support, or loss to follow-up. Addressing these barriers through patient navigation services, social support programmes, improved scheduling, and strengthened counselling may substantially improve treatment completion rates. Among patients completing definitive treatment, 65.0% achieved a complete clinical response. Although this response rate compares favourably with outcomes reported in several institutional series from India, interpretation should be made cautiously because long-term survival could not be adequately evaluated owing to incomplete follow-up. Furthermore, treatment response may have been influenced by tumour stage, treatment interruptions, chemotherapy compliance, and overall treatment time, variables that were not uniformly documented in the retrospective records.

The toxicity profile observed in the present audit was consistent with the expected adverse effects of definitive pelvic chemoradiotherapy. Anaemia was the most frequently documented acute toxicity, while bladder and rectal complications represented the predominant late toxicities. Importantly, no Grade IV toxicity was documented during the study period, suggesting that radical treatment was generally well tolerated in patients who completed therapy. Nevertheless, optimization of nutritional status, correction of anaemia before treatment initiation, early recognition of treatment-related adverse events, and adherence to supportive care protocols remain important components of comprehensive cervical cancer management.

Poor long-term follow-up emerged as another major deficiency identified during this audit. Inadequate follow-up restricted meaningful assessment of disease-free survival, overall survival, late toxicities, and patterns of recurrence. Similar challenges have been described in many government oncology centres serving rural and socioeconomically disadvantaged populations. Establishment of structured follow-up pathways, electronic patient-tracking systems, mobile-phone reminders, telemedicine services, and closer coordination with peripheral healthcare facilities may substantially improve long-term patient retention and facilitate timely detection of recurrence. From a quality improvement perspective, this audit demonstrates that periodic evaluation of institutional performance can identify deficiencies that may otherwise remain unrecognized. The findings support implementation of standardized treatment pathways, improved documentation of overall treatment time and treatment interruptions, routine monitoring of treatment completion rates, structured toxicity reporting, and regular multidisciplinary audit meetings. Repeating the audit after implementation of these interventions will allow objective assessment of their impact on patient care and will contribute to continuous quality improvement within the department.

Table 7. Quality indicators identified for future institutional clinical audits

Quality indicator	Observation in present audit	Recommended improvement
Advanced-stage presentation	Majority presented with Stage III–IV disease	Strengthen awareness and screening programmes
Treatment completion	68.2% completed planned treatment	Improve patient counselling and navigation
Follow-up compliance	Poor	Electronic tracking and reminder system
Documentation	Incomplete in some records	Standardized proformas and electronic records
Toxicity recording	Non-uniform	Routine CTCAE/RTOG documentation
Treatment interruptions	Not consistently documented	Mandatory recording of interruption and reasons

Strengths: The principal strength of this study is that it provides real-world evidence from a high-volume government tertiary care teaching hospital serving a predominantly rural population. Unlike many clinical studies that focus exclusively on treatment outcomes, the present audit evaluated the entire patient care pathway, including presentation, treatment delivery, compliance, toxicity, and follow-up. These findings establish baseline institutional quality indicators that may serve as benchmarks for future re-audits and quality improvement initiatives.

Limitations: The present study has several limitations. Its retrospective single-centre design limits the generalizability of the findings. Missing documentation and incomplete follow-up restricted evaluation of long-term survival outcomes. Important prognostic variables, including overall treatment time, chemotherapy compliance, performance status, HPV status, and standardized toxicity grading, were not consistently available in the medical records. In addition, inferential statistical analyses could not be performed because of the descriptive nature of the audit. Despite these limitations, the study provides valuable baseline data regarding institutional performance and identifies several modifiable deficiencies that may be addressed through future quality improvement measures.

CONCLUSION

Carcinoma cervix continues to impose a substantial disease burden in northern India, with the majority of patients presenting at locally advanced stages despite the availability of effective screening methods and curative treatment options. This retrospective clinical audit identified several important deficiencies in the existing care pathway, including delayed presentation, suboptimal treatment completion, inadequate documentation, and poor long-term follow-up. Although satisfactory clinical response was achieved among patients who completed definitive treatment, only 68.2% of registered patients completed the planned treatment protocol, highlighting the need to improve treatment adherence and continuity of care. Strengthening community awareness, expanding HPV vaccination and organized cervical cancer screening, improving referral pathways, minimizing treatment interruptions, ensuring timely completion of chemoradiotherapy and brachytherapy, and implementing structured patient-tracking systems are likely to improve treatment outcomes in resource-constrained settings. Importantly, this audit establishes baseline institutional quality indicators against which future re-audits can objectively evaluate the impact of quality improvement interventions. Integration of periodic clinical audits into routine departmental quality assurance programmes will facilitate continuous monitoring of clinical practice, promote adherence to evidence-based guidelines, and ultimately enhance the quality of cervical cancer care.

FUTURE QUALITY IMPROVEMENT RECOMMENDATIONS: Based on the findings of this audit, several measures may improve the quality of cervical cancer care at our institution. Community-based awareness programmes should be strengthened to promote early recognition of symptoms and encourage timely healthcare seeking. Expansion of HPV vaccination and organized cervical cancer screening programmes, in accordance with national recommendations, is essential to facilitate earlier diagnosis. Institutional efforts should focus on reducing delays between diagnosis and treatment initiation, minimizing treatment interruptions through proactive management of anaemia and treatment-related toxicities, and ensuring timely completion of external beam radiotherapy and brachytherapy. Standardized documentation of overall treatment time, chemotherapy compliance, treatment interruptions, and toxicity should be incorporated into routine clinical practice as departmental quality indicators.

Implementation of an electronic patient-tracking system, mobile-phone reminders, teleconsultation services, and stronger coordination with district hospitals may improve long-term follow-up and surveillance. Finally, periodic multidisciplinary clinical audits and prospective data collection should be integrated into the departmental quality assurance programme to enable continuous evaluation of institutional performance and assessment of future quality improvement initiatives through re-audit.

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